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Finanční analýza vybrané společnosti

Financial Analysis of a Selected Company

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1. Introduction
2. Description of the Financial Analysis Methodology
3. Characterization of the Selected Company
4. Financial Analysis of the Selected Company
5. Conclusion

Bibliography
List of Abbreviations
Declaration of Utilization of Results from the Bachelor Thesis
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Annexes

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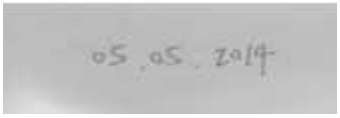
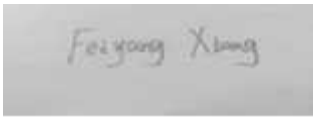
The Declaration

“Herewith I declare that I elaborated the entire thesis, including all Annexes, independently.”





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Contents

1. Introduction

Financial analysis is a method which can be applied to evaluate a company's present and future financial position. The company's managers can use financial analysis to make decisions. The goal of the thesis is to perform the financial analysis of Wuhan Department Store Group Co Ltd. In this thesis, we will analyze the financial data of Wuhan Department Store Group Co Ltd. (Wu Group) from 2008 to 2012. The data includes the company's balance sheets, income statement and cash flow statement.

There are five chapters in this thesis. In the first chapter we introduce the structure and provide basic information about each chapter.

The second chapter consists of description of the financial analysis methodology, which can be used to analyze the company's financial statements. There are three main methods in this part: common-size analysis which evaluates the accounts in financial statements as a percentage of bases, it includes vertical analysis and horizontal analysis; financial ratio analysis which uses financial accounting and other information to assess a company's financial performance and financial condition, there are four main group of ratios, their formulas and means are described within the chapter; DuPont analysis which evaluate the company's level of profitability and return on shareholders' equity, there are gradual changes and logarithmic decomposition methods described.

In the third chapter, there are some information of Wu Group, including Wu Group's history, strategy and structure. From this part, we can understand this company overall, and it helps us understand the result of financial analysis.

The fourth chapter is the most important part of the thesis. In this part, we use the methodology of financial analysis to analyze Wu Group's financial situation during the selected period. This part includes all application of financial analysis which has been described in second chapter, such as common-size analysis applied in order to analyze the general financial statements' situation of Wu Group. Applied financial ratio analysis includes activity ratios which can be used to analyze Wu Group's ability of using its assets, like assets turnover,

receivable turnover and so on; liquidity ratios analysis which uses current ratio, quick ratio, cash ratio and operating cash flow ratio to analyze Wu Group's ability of paying back its short-term liabilities. Solvency ratio analysis which is used to analyze Wu Group's ability of paying back its long-term obligations, it includes debt-to-assets ratio, debt-to-equity ratio etc. Profitability ratio analysis analyzes Wu Group's profitability. DuPont analysis evaluates Wu Group's financial data.

The last chapter of the thesis is conclusion; in which we will summarize this thesis, show financial analysis results, and evaluate the financial situation during the selected period of Wu Group.

2. Description of the Financial Analysis Methodology

The financial analysis of a company is a process of selecting, evaluating, and interpreting financial data, along with other relevant information, in order to formulate an assessment of the company's present and future financial condition and performance. We can use financial analysis to evaluate the efficiency of a company's operations, its ability to manage expenses, the effectiveness of its credit policies, and its creditworthiness, among other things.[1] Financial analysis is utilized to help the investors of the companies, the creditors, managers and others concerned with companies organization or individual companies to understand the past of companies, evaluate companies status, forecast the future and to provide accurate information for making the right decision.

This chapter is based on the following references: Drake and Fabozzi (2010), Harrington (2003) and Vance (2002).

2.1 Common-size analysis

Common-size analysis evaluates the accounts in financial statements as a percentage of bases, using a common denominator or reference account that allows us to identify trends and major differences. There are two types of common-size analysis: vertical common-size analysis and horizontal common-size analysis.

2.1.1 Vertical common-size analysis

By vertical common-size analysis the accounts in a given period are compared to a benchmark account in the same year,

$$IP_t = \frac{B_t}{I_t}, \tag{2.1}$$

where I_t is the value of the account in year t, B_t is the value of the base in year t. For the

[1] Drake and Fabozzi (2010, p.311)

income statement, the revenues are benchmarks (the base accounts), i.e. for a given period, each account in the income statement is restated as a percentage of revenues. For the balance sheet, the total assets are benchmarks (the base accounts). For a given point in time, each account in the balance sheet is restated as a percentage of total assets.

2.1.2 Horizontal common-size analysis

In horizontal common-size analysis we use the accounts in a given period (base period) as the benchmark and restate every account in subsequent periods as a percentage of the base period's same account,

$$\Delta I_t = \frac{I_t - I_{t-\Delta t}}{I_{t-\Delta t}}, \tag{2.2}$$

where I_t stands for the value of the account in the assumed year and $I_{t-\Delta t}$ stands for the value of the account in the base year.

Horizontal common-size analysis is a time-series analysis and is useful for identifying trends and growths in accounts over time. Whereas each account in a vertical common-size analysis is restated each year as a proportion of the reference account, each account in a horizontal common-size analysis is instead compared with the value of that same account in a benchmark year.

2.2 Financial ratio analysis

Financial ratio analysis uses financial accounting and other information to assess a company's financial performance and financial condition.[2] It can evaluate revenues changes in each year; it can also compare different companies of one industry in the same time. Financial ratio analysis can eliminate the impact of the scale, to compare earnings and risk of different companies, to help investors and creditors to make rational decisions.

The group of financial ratios can be divided into four sub-groups. These sub-groups are:

[2] Drake and Fabozzi (2010, p.311)

activity ratios, liquidity ratios, solvency ratios, profitability ratios. All these ratios are described below in more detail.

2.2.1 Activity ratios analysis

Activity ratio analysis evaluates how well the company uses its investments. It is compared with some important objects in the same period of data related to financial statements. These ratios are used to evaluate and analyze the business activities of the company. The examples of activity ratios are: inventory turnover, receivable turnover, payable turnover, total asset turnover, etc. All of them are described below.

a) Inventory Turnover

Inventory turnover ratio is the ratio of the cost of goods sold and the average inventory balance in certain period. It can be computed as follows,

$$\text{Inventory Turnover} = \frac{\text{Cost of Goods Sold}}{\text{Average Inventory}}. \qquad (2.3)$$

By considering the inventory turnover ratio we can analyze whether the amount of stock funds are reasonable or not; whether it allows the company to keep production and operation continuously at the same time etc.

b) Receivable Turnover

Receivable Turnover ratio is calculated within a certain period of time (usually a year). It is a measure of how many times the accounts receivables change into cash (it shows the accounts receivable flow velocity). It is computed as a sales divided by the average value of accounts receivable,

$$\text{Receivable turnover} = \frac{\text{Net Credit Sales}}{\text{Average Net Receivables}}. \qquad (2.4)$$

c) Payable Turnover

Payable turnover ratio refers to the quantity of how many times the account payables changes in one year. Account payable turnover rate reflect the degree of company accounts payable flow. It is an index of current debt payment ability and the supplier's financial status. It is used to measure the compensative of a company. If accounts payable turnover rate is high, it means the terms of payment is not favorable, the company is usually forced to pay up. If the other conditions are the same, accounts payable turnover rate should be as low as possible. It can be computed as follows,

$$\text{Payable Turnover} = \frac{\text{Total Purchases}}{\text{Average payable}}. \tag{2.5}$$

d) Total Asset Turnover

Total asset turnover refers to the ratio of income and average total assets that company sale in a certain period of time (operating). It is an important index to evaluate the company's management quality and efficiency. The higher total asset turnover is reflecting higher sales ability. Company can accelerate asset turnover by getting smaller profits, which can result in the increase of the absolute amount of profit. It can be computed as follows,

$$\text{Asset Turnover} = \frac{\text{Net Sales}}{\text{Total Sales}}. \tag{2.6}$$

e) Working Capital Turnover

Working capital is the difference between current assets and current liabilities. Working capital turnover rate refers to the ratio of annual net sales and operating funds, it reflects the times of working capital turnover in a year. It is in accordance with the requirements of establishing a modern company system, an important index to reflect the situation of the economic efficiency of companies. If working capital turnover rate is too low, it shows that the working capital using rate is too low, means working capital lacks sales; if the working capital

turnover rate is too high, it shows that capital is insufficient. It can be computed as follows,

$$\text{Working Capital Turnover} = \frac{\text{Total Revernue}}{\text{Average Working Capital}}. \quad (2.7)$$

f) Inventory Conversion Period

Inventory Conversion Period means the time of completing one inventory turnover. This number should be as low as possible, low company inventory turnover rate reflects the good sales situation. It can be computed as follows,

$$\text{InventoryConversion Period} = \frac{\text{Inventory} \cdot 365}{\text{CostofGoodsSold}}. \quad (2.8)$$

g) Average Collection Period

Average Collection Period is a period between an account receivable is created and the collection of the account receivable in cash. It can be computed as follows,

$$\text{Average Collection Period} = \frac{\text{Accounts Receivable} \cdot 365}{\text{Annual Credit Sales}}. \quad (2.9)$$

h) Average Payment Period

Average Payment Period measures average time span of a business pays back its debts. It can be computed as follows,

$$\text{Average Payment Period} = \frac{\text{Average Payable Balance} \cdot 365}{\text{Main Business Net cost}}. \quad (2.10)$$

i) Degree of Operating Leverage

Degree of Operating Leverage (henceforth DOL) means a multiple between percentage change in operating income and percentage change in revenues. It can be computed as follows,

$$\text{DOL} = \frac{\text{Percent Change in Operating Income}}{\text{Percent Change in Revenues}}. \quad (2.11)$$

2.2.2 Liquidity ratios analysis

Liquidity ratio analysis calculates the ratio between assets and liabilities of a company to analyze the company's liquidity position, to provide the basis for the liquidity management of the company. We can construct several such ratios to assess a company's liquidity. We will describe four of these ratios: the current ratio, the quick ratio, the cash ratio and the operating cash flow ratio.

a) Current Ratio

Current ratio is a kind of ratio between current assets and current liabilities, to measure the company's ability of changing assets into cash in order to pay off short-term liabilities before maturity. Generally, if the ratio is high, the ability of changing assets to cash is strong, meaning that the ability of short-time debt repayment is strong; otherwise, it is weak. Usually, the liquidity ratio should be more than 2; it means the current assets should be two times more than the current liabilities. This ensures that all current liabilities can be repaid, even if the half of current assets in the short term cannot be realized, the current ratio can be computed as follows,

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilitie s}}. \tag{2.12}$$

b) Quick Ratio

Quick ratio is a more stringent measure of liquidity. This ratio indicates a company's ability to satisfy current liabilities with its most liquid assets (which are supposed to be: cash, short-term marketable investments and receivables). It can be computed as follows,

$$\text{Quick ratio} = \frac{\text{Cash} + \text{Short - term marketable investment s} + \text{Re ceivales}}{\text{Curent liabilitie s}}. \tag{2.13}$$

c) Cash ratio

Cash ratio is a measure of the company's ability to meet its current obligations with just the cash and cash equivalents on hand. It can be computed as follows,

$$\text{Cash ratio} = \frac{\text{Cash} + \text{Short - term marketable investment s}}{\text{Current liabilitie s}}. \tag{2.14}$$

d) Operating Cash Flow Ratio

Operating Cash Flow Ratio (henceforth OCF) is the ratio of net operating cash flow to current liabilities. The ratio is used to measure to which degree of the business activities' cash flow can compensate current liabilities. The higher the ratio is, the better for the company (meaning it is more flexible). Because of the nature of the business (service type, different types of production), for different industries' the company operates in, the differences in the ratios for different companies are big. It can be computed as follows,

$$\text{OCF} = \frac{\text{Cash Flow from Opeation}}{\text{Current Liabilitie s}}. \tag{2.15}$$

2.2.3 Solvency ratios analysis

Solvency ratios analysis measures the ability of a company to repay long-term debts and short-term debts. We use solvency ratios to assess a company's level of financial risk. The examples of solvency ratios are: debt-to-assets ratio, long-term debt-to-assets ratio, debt-to-equity ratio, financial leverage ratio, interest coverage ratio, cash-flow-to debt ratio etc. All of them are described below.

a) Debt-to-Assets ratio

The debt-to-assets ratio (sometime also called asset liability ratio) is the ratio of total liabilities divided by total assets. It is reflecting how much percentages of total assets are financed by debt; it can measure the degree of the company to protect the interests of creditors

in the liquidation. It can be computed as follows,

$$\text{Debt - to - Assets Ratio} = \frac{\text{Total Debt}}{\text{Total Assets}}. \tag{2.16}$$

b) Long-term Debt-to-Assets Ratio

Long-term-debt-to-assets ratio refers to the percentage ratio of non-current liabilities to the value of total assets. It reflects the firm's long-term capital structure. It can be computed as follows,

$$\text{Long - term debt - to - Assets} = \frac{\text{Long - term Debt}}{\text{Total Assets}}. \tag{2.17}$$

c) Debt-to-Equity Ratio

Debt-to-Equity Ratio is the ratio of a company's total liabilities and total equity. It reflects the index of the owners' equity to protection degree of creditors' equity. It can be computed as follows,

$$\text{Debt - to - Equity Ratio} = \frac{\text{Total Debt}}{\text{Total Equity}}. \tag{2.18}$$

d) Financial Leverage Ratio

Financial Leverage means the measure of a company to adjust equity corporate capital gains. Financial leverage ratio means the ratio of debt financing. If the return on investment is higher than the cost of debt, the increase in financial leverage will increase their return on net assets; conversely, if companies cannot repay debt in time, they will face the threat of going bankruptcy. The financial leverage ratio can be computed as follows,

$$\text{Financial Leverage Ratio} = \frac{\text{Total Asset}}{\text{Total Equity}}. \tag{2.19}$$

e) Interest Coverage Ratio

Interest coverage ratio is also referred to as the times-interest-earned ratio; it compares the earnings available to meet the interest obligations with the interest obligations. It can be computed as follows,

$$\text{Interest Coverage ratio} = \frac{\text{Earnings before Interest and Taxes}}{\text{Interest payments}}. \quad (2.20)$$

f) Cash-Flow-to Debt Ratio

Cash-flow-to debt ratio is similar to the interest coverage ratio; we substitute cash flow from operations plus interest and taxes in the numerator to reflect the funds available to repay the debt. It can be computed as follows,

$$\text{Cash - Flow - to Debt Ratio} = \frac{\text{Cash Flow From Operation}}{\text{Total Debt}}. \quad (2.21)$$

2.2.4 Profitability ratio analysis

Profitability ratio analysis is an analysis which can instantly tell whether a company is profitable based on whether net income is positive. Of course, net income alone does not describe the efficiency with which profit was generated or the level of investment required to generate that profit. To conduct a more thorough analysis of profitability, analysts examine various margins and return-on-investment ratios.[3]The examples of profitability ratios are: gross profit margin, operating profit margin, pretax profit margin, net profit margin, return on assets (ROA), return on equity (ROE) etc. All of them are described below.

a) Gross Profit Margin

The gross profit margin is the ratio of gross profit to revenues. Gross profit is the

[3] Drake and Fabozzi (2010, p.333)

difference between revenues and the cost of goods sold. We use this ratio to see how much of every dollar of revenues is left after the cost of goods sold;[4] it can be computed as follows,

$$\text{Gross Profit Margin} = \frac{\text{Gross Profit}}{\text{Total Revenue}}. \tag{2.22}$$

b) Operating Profit Margin

The operating profit margin is the ratio of operating income (i.e. income before interest and taxes) to revenues. This ratio indicates how much of each dollar of revenues is left over after both cost of goods sold and operating expenses are considered.[5] It can be computed as follows,

$$\text{Operating Profit Margin} = \frac{\text{Operating Income}}{\text{Total Revenue}}. \tag{2.23}$$

c) Pretax Profit Margin

Pre-tax profit margin is the ratio of profit before taxes to revenues; it reflects the impact of capital structure and financing structure on corporate profitability. It can be computed as follows,

$$\text{Pretax Profit Magin} = \frac{\text{EBT}}{\text{Total Revenue}}. \tag{2.24}$$

d) Net Profit Margin

The net profit margin is the ratio of net income to revenues and it indicates how much of each dollar of revenues is left over after all costs and expenses are paid.[6] It can be computed as follows,

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[4] Drake and Fabozzi (2010, p.333)

[5] Drake and Fabozzi (2010, p.334)

[6] Drake and Fabozzi (2010, p.334)

$$\text{Net Profit Margin} = \frac{\text{Net Income}}{\text{Total Revenue}}. \tag{2.25}$$

e) Return on Assets (ROA)

The return on assets is the ratio of net income to assets and indicates the company's net profit generated per dollar invested in total assets.[7] It can be computed as follows,

$$\text{Return on Assets} = \frac{\text{Net Income}}{\text{Average Ttoal Assets}}. \tag{2.26}$$

f) Return on Equity (ROE)

The return on equity is more specifically connected to the return of shareholders and it is the ratio of net income to shareholders' equity. This return represents the profit generated per dollar of shareholders' investment.[8] It can be computed as follows,

$$\text{Return on Equity} = \frac{\text{Net Income}}{\text{Average shareholders' Equity}}. \tag{2.27}$$

2.3 DuPont Analysis

The DuPont analysis is a method to evaluate the company's level of profitability and return on shareholders' equity. It decomposes company's ROE into many financial ratios. The decomposition is constructed in the way that if we multiply the particular financial ratios we obtain the return on equity. That means we can decompose ROE as follows,

$$\text{ROE} = \frac{\text{Net Profit}}{\text{Equity}} = \frac{\text{Net Income}}{\text{Revenues}} \cdot \frac{\text{Revenues}}{\text{Total Assets}} \cdot \frac{\text{Total Assets}}{\text{Equity}}. \tag{2.28}$$

If we separate the effects of taxes and interest, we can decompose the net profit margin as follow,

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[7] Drake and Fabozzi (2010, p.335)

[8] Drake and Fabozzi (2010, p.335)

$$\frac{\text{Net Income}}{\text{Revenues}} = \frac{\text{Net income}}{\text{EBT}} \cdot \frac{\text{EBT}}{\text{EBIT}} \cdot \frac{\text{EBIT}}{\text{Revenues}}. \tag{2.29}$$

Substituting (2.29) into (2.28), we obtain,

$$\text{ROE} = \frac{\text{Net income}}{\text{EBT}} \cdot \frac{\text{EBT}}{\text{EBIT}} \cdot \frac{\text{EBIT}}{\text{Revenues}} \cdot \frac{\text{Revenues}}{\text{Total Assets}} \cdot \frac{\text{Total Assets}}{\text{Equity}}. \tag{2.30}$$

If we look at (2.30) we can simplify the equation in terms of previously discussed financial ratios as follows:

$$\text{ROE} = \text{OperatingProfitMargin} \cdot \text{TaxBurden} \cdot \text{InterestBurden} \cdot \text{AssetsTurnover} \cdot \text{FinancialLeverage} \tag{2.31}$$

The DuPont analysis is good for managers of company to understand the main factors which influence ROE and to understand the relevance among net profit, total assets turnover, financial leverage, etc.

2.3.1 Influence quantification of the return on equity

The influence quantification of the return on equity can be applied to quantize the influencing factors on ROE; it enables us to analyze indicators, whose changes have caused the change in the basic ratio. We can use the method of gradual changes and the logarithmic decomposition method, which will be described below. However, the logarithmic or function methods can be applied as well.

a) The method of gradual changes

The method of gradual changes is a method to divide basic ratio change into component ratios' influences, and find out which changes the basic ratio at most. It enables to quantify the change in the basic ratio caused by the changes in the component ratios,

$$\Delta x_{a_i} = \Delta a_i \cdot \prod_{j<1} a_{j,1} \cdot \prod_{j>1} a_{j,0}. \tag{2.32}$$

Where the x is basic ratio (i.e. ROE), the Δx is absolute change in the basic ratio, the a is component ratio and the Δa is absolute change in the component ratio.

b) Logarithmic decomposition method

According to the logarithmic decomposition method the impact of the i-th component ratio on the change in the basic ratio is calculated as follows,

$$\Delta x_{a_i} = \frac{lnI_{a_i}}{lnI_x} \cdot \Delta x. \tag{2.33}$$

Where x is basic ratio (i.e. ROE), Δx is absolute change in the basic ratio, $I_x = \frac{x_1}{x_0}$ is the index of change in basic ratio and $I_a = \frac{a_1}{a_0}$ is the index of change in component ratio.

3. Characterization of the Selected Company

This chapter includes some basic information about Wuhan Department Store Group Co Ltd. such as history, strategy, structure and so on. Wu Group has a long history in China, and it is the biggest shopping mall in Wuhan. Many people from other cities shop there.

This chapter is based on the information provided by Wuhan Department Store Group Co Ltd website[9].

3.1 History of Wuhan Department Store Group Co Ltd

Wuhan Department Store Group Co Ltd is one of the biggest store groups in Hubei province. Its predecessor was founded in 1959, named the Sino Soviet friendship department store (later renamed to the Wuhan shopping malls), it is one of the most famous shopping malls in China. In 1986, Wuhan shopping malls conducted shareholding reform firstly among same industries in China. In 1992, Wuhan Department Store Group Co Ltd was listed in Shenzhen, becoming the first listed Commercial stock in China. Since the reform and opening up, Wuhan Department Store Group Co Ltd applied many reforms. Development and innovation, size and strength of the firm developed rapidly.

In 2006 April, Wuhan Department Store Group Co Ltd completed the share split. At this date the company had total share capital 507,000,000 Yuan, total assets 4,280,000,000 Yuan, net assets 1,290,000,000 Yuan, nearly 30,000 employees, 14 subsidiaries and branches. Among them, there were 5 joint venture enterprises in Malaysia and Hongkong. Wuhan Department Store Group Co Ltd operated commercial retail, real estate, property management, tourism, catering, import and export trade, etc.

In 2007, the company's annual sales amounted to around 9,200,000,000 Yuan, the annual profit around one billion Yuan, annual tax around 236,000,000 Yuan. Company business developed from a single department store into the shopping center gradually. The company

[9] http://www.wushang.com.cn/sm_show.htm

operates 49 shopping malls; radiation range covers Xiangfan, Ezhou, Huanggang, Shashi, Xianning, Yichang, Shiyan, Huangshi City. Its commercial retail area is around 720,000 square meters. Composed of Wuhan International Plaza, Wuhan Plaza and World Trade Plaza three shopping centers, located in the most prosperous commercial district of Wuhan City - the Middle Road, three buildings are connected into a whole, business area around 220,000 square meters.

3.2 **Strategy of Wuhan Department Store Group Co Ltd**

In 2007, the Wu group started the development planning project of five years, extends the total land area of 42000 square meters in the south of Liberation Avenue, west of Wuhan International Exhibition Center, north of Jinghan Avenue, combining the development trend of international commercial activities and Wuhan Jinghan 11 road Culture Street to build a shooing mall which includes Shopping, leisure, catering, tourism, conference and exhibition.

The purpose is to expand sales, promote goal, project development, management and promote mechanism, promoting quality, striving to achieve the goal of economic development projects of enterprises, to keep the smooth progress of growth momentum.

3.3 Structure of Wuhan Department Store Group Co Ltd

Wu Group has 7 shops in China, 5 of them are in Wuhan, 2 of them are in Xiangyang. Wuhan International Plaza, Wuhan Plaza and World Trade Plaza are the three biggest shopping malls in Wuhan. They earn around five hundred million Yuan every year. The subsidiary shops of Wu Group are showed in Fig 3.1.

Fig. 3.1: subsidiary shops of Wu Group

Source: Wuhan Department Store Group Co Ltd website.

4. Financial Analysis of the Selected Company

In this chapter, we will use the financial methods introduced in the second chapter to analyze the Wuhan Department Store Group Co Ltd's financial performance. There are three parts in this chapter: common-size analysis, financial ratio analysis and DuPont analysis. We will use financial data to analyze the development of this company during the years 2008-2012.

4.1 Common-size Analysis

In this part, we will use vertical common-size analysis and horizontal common-size analysis to analyze the situation of Wuhan Department Store Group Co Ltd by the data of balance sheet, income statement and cash flow statement.

4.1.1 Vertical common-size analysis

As it was stated before, the benchmark for the income statement is the revenues. This means that, for a given period, each item in the income statement is restated as a percentage of revenues. For the balance sheet it is the same, however, the benchmark is total assets.

The results of vertical common-size analysis of income statement during years 2008 and 2012 are stated in Table 4.1.

From the Table we can see that the percentage of operating cost is for all years more than 78%. This is big part of revenues. The changes are not more than 2%, but in average, the proportions of operating costs are increasing. Conversely, the earnings before taxes (EBT) are decreasing except in 2011 to 2012. The selling, management and financial expenses are stable, all around 14.5%, as we can see; they are small part of the costs. Operating profits are decreasing also because of the increase of total operating cost, but operating incomes are different, that are increasing during 2008 to 2009, and decreasing from 0.30% to 0.12% during 2009 to 2012. The business expenditures are instable, same as the loss on disposal of noncurrent assets. However, compared to the revenues their values are very small. The income tax expenses are nearly a quarter of EBT, so the taxes are heavy. The net profits are

decreasing, and they are small part of revenues. In general, the situation of Wu Group is not good.

Table 4.1: Vertical common-size analysis of Income Statements

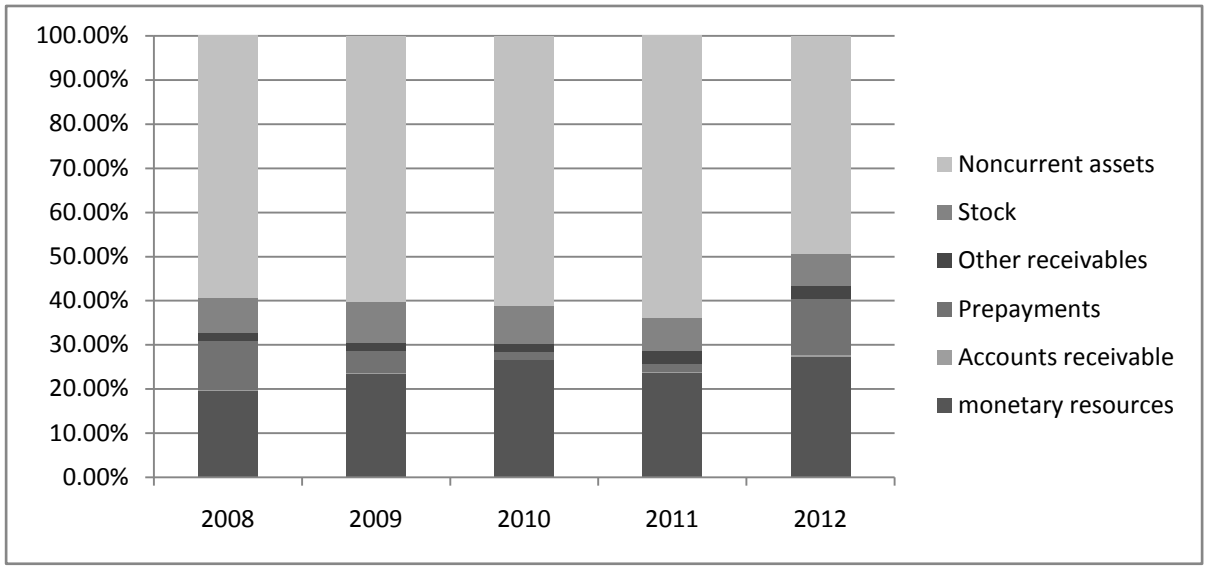
Items	2008	2009	2010	2011	2012
Revenues	100.00%	100.00%	100.00%	100.00%	100.00%
Total operating cost	94.75%	95.37%	95.18%	95.23%	95.13%
Selling, Management and Financial expenses	14.75%	14.54%	14.29%	14.50%	14.53%
Operating income	0.20%	0.30%	0.24%	0.16%	0.12%
Business expenditure	0.20%	0.11%	0.08%	0.18%	0.08%
Loss on disposal of noncurrent assets	0.03%	0.08%	0.03%	0.14%	0.05%
Earnings before taxes (EBT)	5.66%	5.39%	4.99%	4.74%	4.90%
Income tax expense	1.52%	1.39%	1.40%	1.24%	1.41%
Net profit	4.14%	4.00%	3.59%	3.50%	3.49%

Source: financial company statements, own elaboration

Next, we will talk about vertical common-size analysis of balance sheet, and separate balance into assets and liabilities & shareholders' equity.

In Annex 4 and in Chart 4.1, we can find that noncurrent assets are growing 4.29% from 2008 to 2011, but decreasing 14.7% during 2011 to 2012. Contrarily, current assets are decreasing 4.29% from 2008 to 2011 and increasing 14.7% during 2011 to 2012. We can see investment in real estate increased 2.12% and intangible assets decreased 11.33%, which is the reason of the decrease of noncurrent assets during 2011 to 2012. Noncurrent assets are bigger than current assets by approximately 10%, which means the company has enough current assets, which means high liquidity; it is good for the company.

Chart4.1: Vertical common-size analysis of Assets

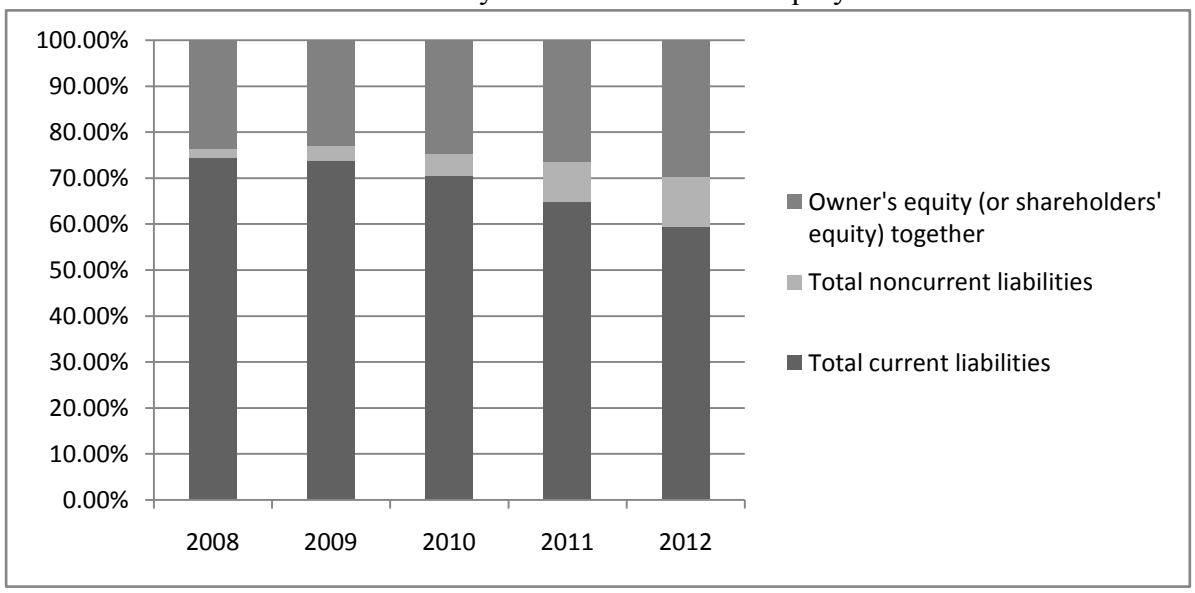


Source: financial company statements, own elaboration

Then we will use the same method to analyze liabilities and equity of the company.

In Annex 5 and Chart 4.2, we can find total noncurrent liabilities increased 9.09% from 2008 to 2012, but total liabilities decreased 6.09% in the same years. Account payable is stable and short-term borrowings are increasing 7.39% during 2008 to 2012. The shareholders' equity is increasing 5.73% in the same years, but the total liabilities have taken a bigger part than shareholders' equity. Total current liabilities are much bigger than total noncurrent liabilities; it is good for the company, because the interest is small.

Chart 4.2: Vertical common-size analysis of Liabilities and Equity



Source: financial company statements, own elaboration

4.1.2 Horizontal common-size analysis

Horizontal common-size analysis needs one year to be the base, we have chosen the first year of the analysis, i.e. year 2008. The results of income statements and balance sheets horizontal common-size analysis are presented in Tables 4.2, Annex 6 and Annex 7.

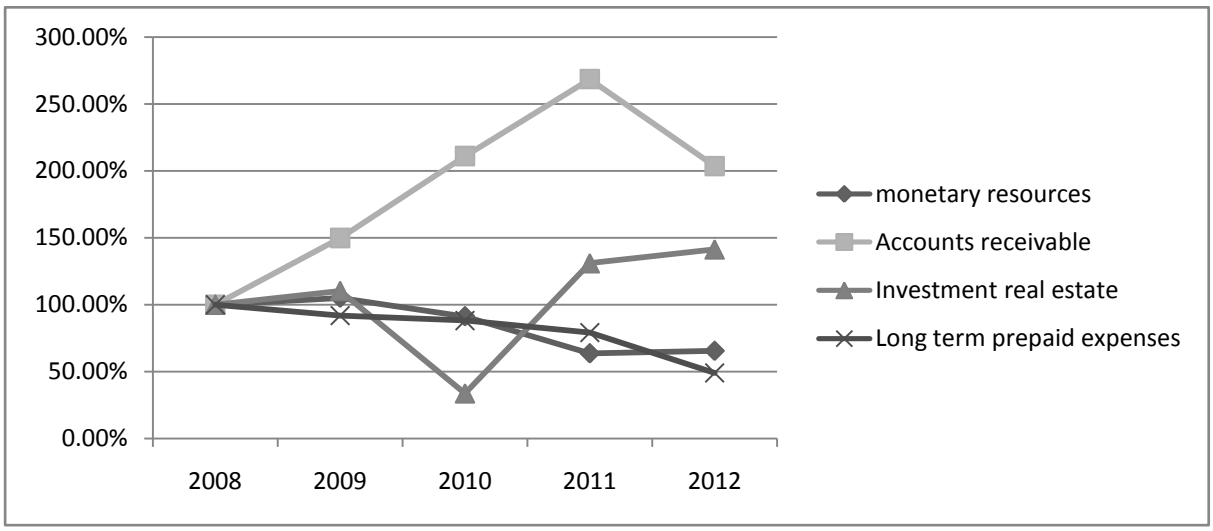
Table 4.2: Horizontal common-size analysis of Income Statements

items	2008	2009	2010	2011	2012
Revenues	100.00%	119.73%	158.94%	192.07%	224.77%
Total operating cost	100.00%	120.51%	159.67%	193.05%	225.69%
Selling, Management and Financial expenses	100.00%	118.02%	130.42%	188.80%	221.38%
Business expenditure	100.00%	67.69%	67.85%	174.54%	95.90%
Loss on disposal of non current assets	100.00%	358.47%	159.75%	965.62%	439.18%
Income tax expense	100.00%	109.37%	146.81%	157.35%	209.06%
Earnings before taxes (EBT)	100.00%	113.99%	140.09%	160.91%	194.81%
Operating profit	100.00%	109.94%	135.65%	161.54%	193.64%
Operating income	100.00%	183.83%	195.64%	156.31%	130.60%
Net profit	100.00%	115.68%	137.63%	162.21%	189.60%

Source: financial company statements, own elaboration

In Table 4.2, we can find that except the business expenditures are decreasing by 4.1% in the whole period, other items in 2012 are almost twice than 2008. That are huge increases, which means scale of the company is bigger and bigger year by year. That is good for the company.

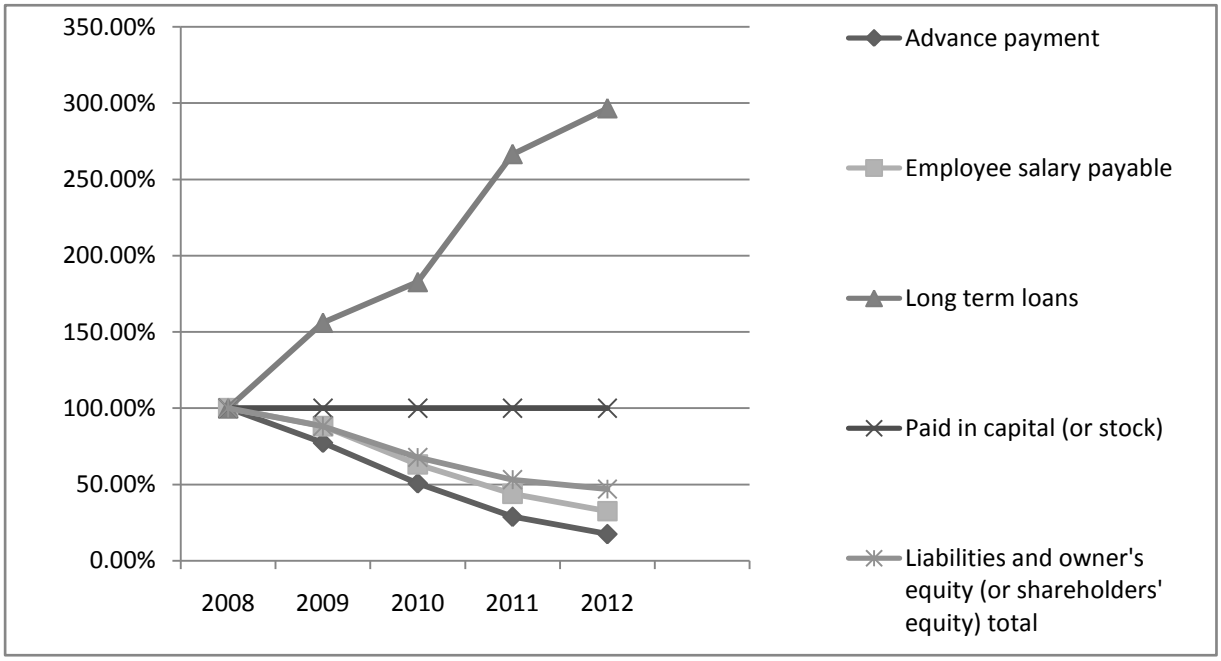
Chart 4.3: Horizontal common-size analysis of Assets



Source: financial company statements, own elaboration

In Annex 6 and Chart 4.3, we can see that except account receivable and investment in real estate (which increased), all other accounts decreased during 2008 to 2012. The investment in real estate has a huge decrease between 2009 and 2011. The accounts receivables increased 168.41% from 2008 to 2011, and decrease 64.91% during 2011 to 2012.

Chart4.4: Horizontal common-size analysis of Liabilities and Equity



Source: financial company statements, own elaboration

In Annex 7 and Chart 4.4, we can see the long term loans are increasing 196.67% and total noncurrent liabilities are increasing 187.24% from 2008 to 2012. The paid in capitals

(or stocks) are fixedness. The advance payment, employee salary payable and liabilities and owner's equity (or shareholders' equity) total decreased a lot from 2008 to 2012.

4.2 Financial ratio analysis

Financial ratio is a ratio between two different financial accounts. We can use this ratio to analyze a company's financial performance and financial condition. There are many ratios we can apply to analyze companies' financial data. In this chapter; we will use four kinds of ratios to analyze the financial performance of Wuhan Department Store Group Co Ltd., including activity ratios, liquidity ratios, solvency ratios and profitability ratios.

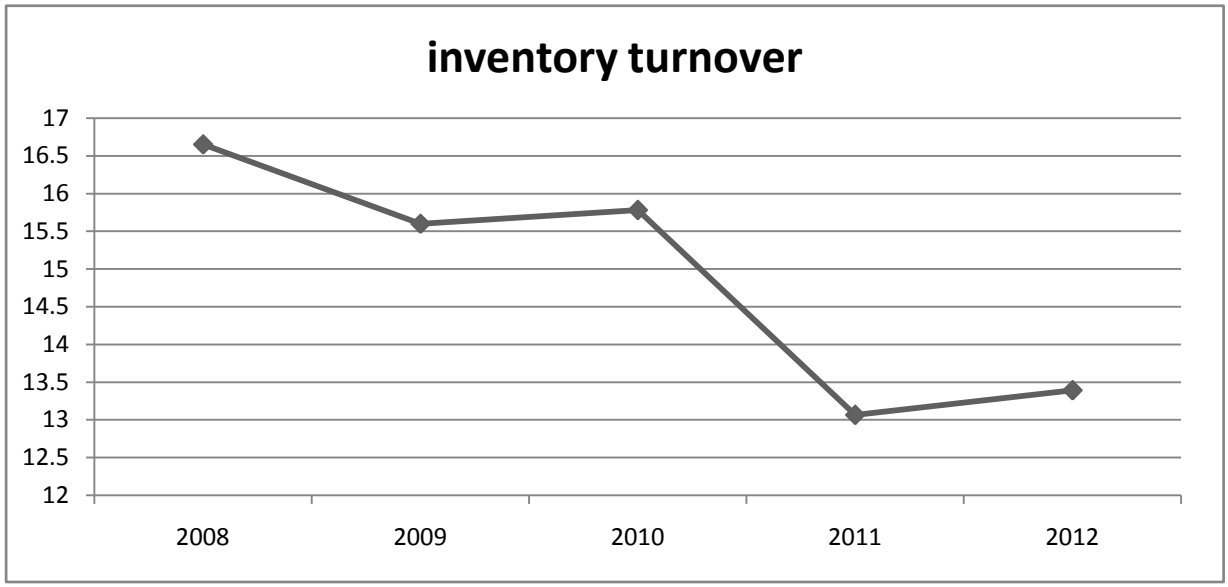
4.2.1 Activity ratios analysis

We have described activity ratios in chapter 2.1. These ratios can be applied to evaluate chosen company's turnovers and find out whether they are effective or not. The following ratios are analyzed: inventory turnover, receivable turnover and payable turnover.

a) Inventory Turnover

Inventory turnover is a ratio to evaluate a company's inventory management efficiency. This ratio is calculated by means of formula (2.3). Values in years 2008-2012 are depicted in Chart 4.5.

Chart 4.5: Inventory turnover



Source: financial company statements, own elaboration

From Chart 4.5, we can find that the inventory turnover is in average decreasing during 2008 to 2012.The highest point is in 2008, the lowest point is in 2011. But the changes of inventory turnover of Wuhan Department Store Group Co Ltd. are small, so the quantity of sales is stable. Generally, the ratio is high as the inventory is turned into the sales 13 times a year on average. Which means the company sells goods frequently.

b) Inventory Conversion Period

Inventory conversion period shows the number of days a company ties up fund in inventory, measures the efficiency of a business in managing its inventory. It is calculated based on formula (2.8) and the values are shown in Table 4.3.

From Table 4.3, we can see that the inventory conversion period of Wu Group is holding around 25 days in average before it is sold. This efficiency is very high; the company can sell all goods out in one month. It is good for the company.

Table 4.3: Average turnovers periods (in days)

year	2008	2009	2010	2011	2012
inventory conversion period	22	23	23	28	27
average collection period	0.7	0.9	0.7	0.4	0.2
average payment period	53	57	55	54	53

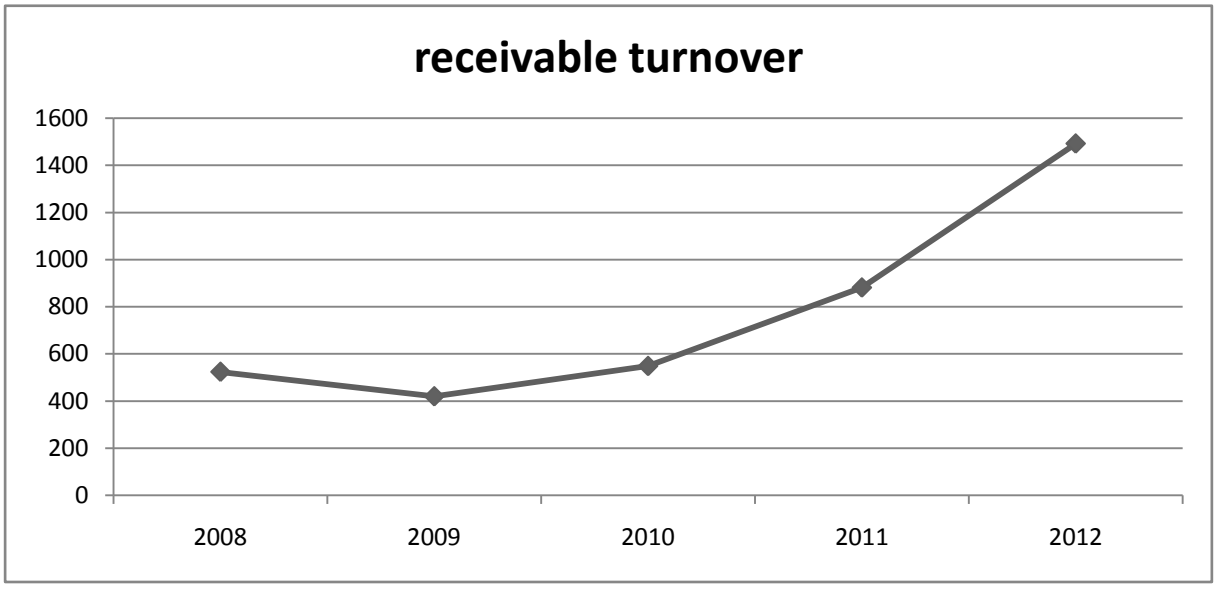
Source: financial company statements, own elaboration

c) Receivable Turnover

Receivable turnover is a ratio to evaluate whether a company's collecting of credit sales is effective or not. It is calculated based on formula (2.4) and the values in years 2008-2012 are depicted in Chart 4.6.

From Chart 4.6, we can find the receivable turnover decreased a little between 2008 and 2009, increased a lot between 2009 and 2012. The highest point is in 2012, the lowest point is in 2009. The receivable turnover is very high; the higher receivable turnover means the company can receive money in credit quicker. So Wuhan Department Store Group Co Ltd. has very high liquidity, and it is higher than before, it is good for company.

Chart 4.6: Receivable Turnover



Source: financial company statements, own elaboration

d) Average Collection Period

The average collection period shows the efficiency of sales collection activities. It is calculated based on formula (2.9). The values can be seen in Table 4.3.

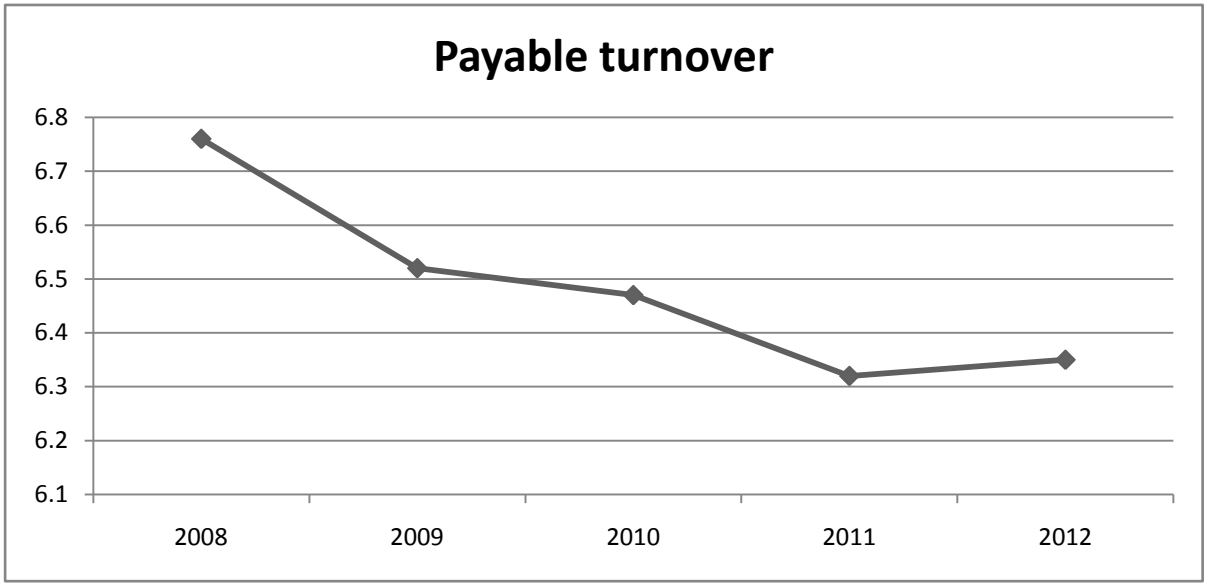
From Table 4.3, we can see that the average collection period of Wu Group is less than 1 day. It is related to the field of business the company is operating in, i.e. the company is selling the goods directly for cash, so receivables are generally not arising.

e) Payable Turnover

Payable turnover is to evaluate short-term liquidity of the company. This ratio is calculated based on formula (2.5). The values in years 2008-2012 are depicted in Chart 4.7.

From Chart 4.7, we can see that the payable turnover decreased from 2008 to 2011 and increased a little between 2011 and 2012. The lower payable turnover, the better company situation, which means company doesn't need to pay back money quickly.

Chart 4.7: Payable Turnover



Source: financial company statements, own elaboration

f) Average Payment Period

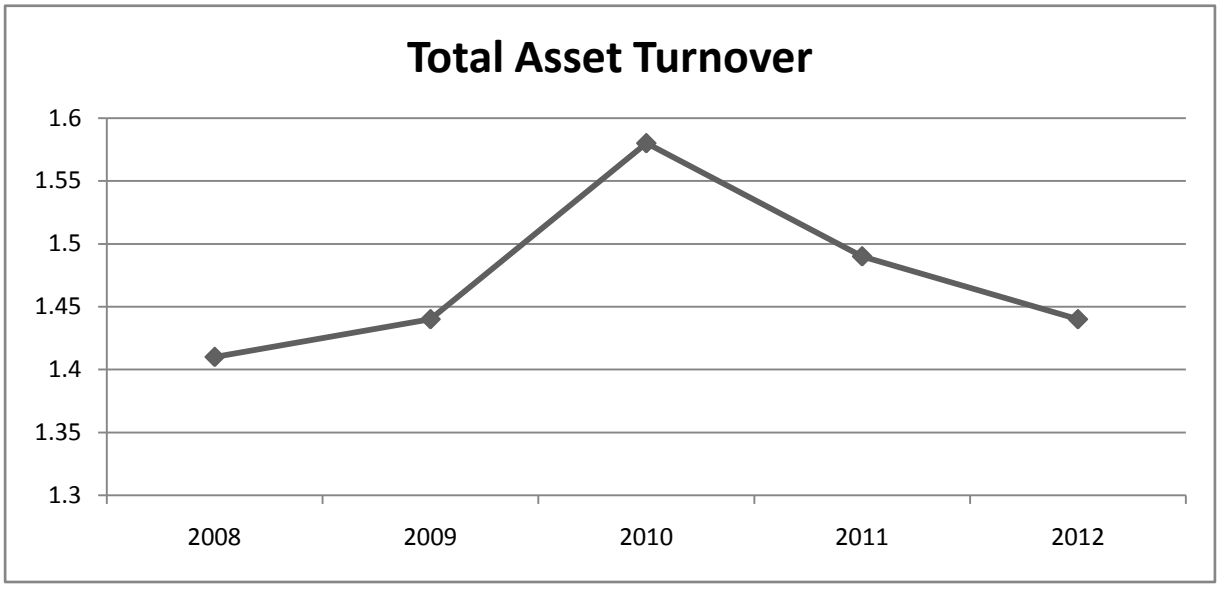
The average payment period shows how many days can the company pay back debts. It is calculated based on formula (2.10). The values can be seen in Table 4.3.

From Table 4.3, we can see that in general, the average payment period of Wu Group is stable, it is around 55 days. We can compare it with the sum of inventory turnover period and the average collection period. It is twice this sum, which means the company buyes the goods (from the suppliers) and not paying it immediately, then the company sells the goods(to the customers), and after that the company payes the suppliers, meaning it get money from the customers before having to pay to the suppliers. This is very good for the company.

g) Total Asset Turnover

Total asset turnover is a ratio to evaluate the company's management quality and efficiency. It is calculated based on formula (2.6). The values in years 2008-2012 are depicted in Chart 4.8.

Chart 4.8: Total Asset Turnover



Source: financial company statements, own elaboration

In Chart 4.8, we can see that the highest point of total asset turnover is in 2010, increased from 2008 to 2010, and decreased from 2010 to 2012. But the changes are very small, which means the total asset turnover of Wu Group is stable, nearly 1.5 times per year. This rate is normal.

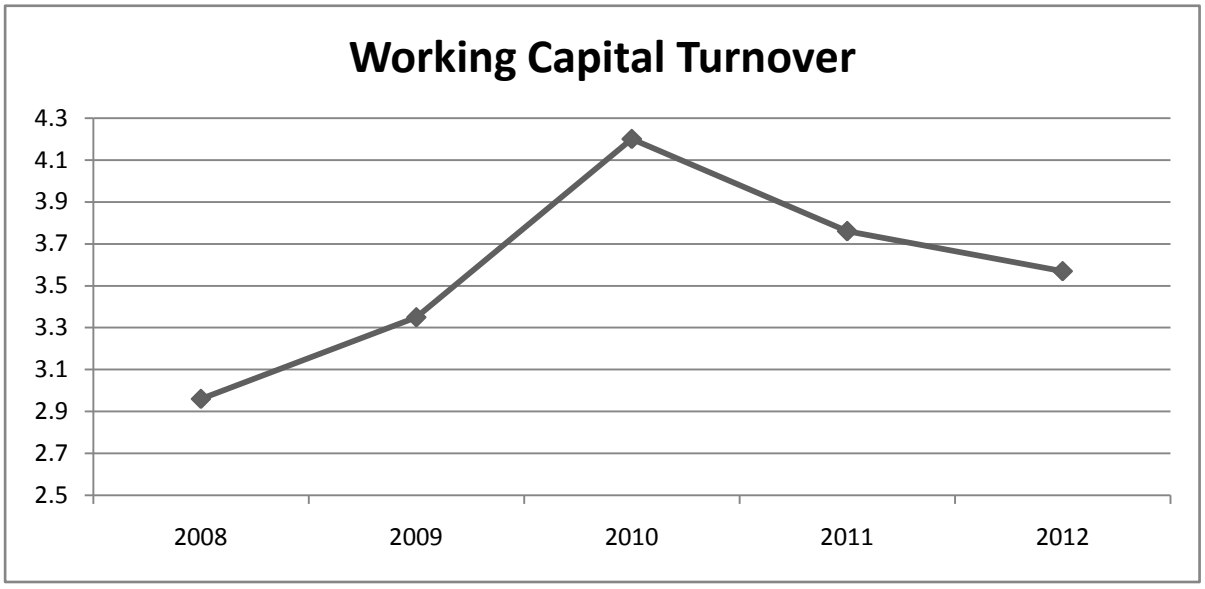
h) Working Capital Turnover

Working capital turnover is a ratio to evaluate how effective the company is, to use its working capital. It is calculated based on formula (2.7). The values in years 2008-2012 are depicted in the Chart 4.9.

In Chart 4.9, we can find that the working capital turnover increased from 2008 to 2010 and decreased from 2010 to 2012. The highest point is in 2010, but in general, the working capital turnover of Wu Group is stable. That means the management of cash flow is good.

We can compare working capital turnover with total asset turnover, the evolution is similar. It is due to the fact that turnover of long-term assets is stable during the period.

Chart 4.9: Working Capital Turnover



Source: financial company statements, own elaboration

4.2.2 Liquidity ratios analysis

Liquidity ratios were described in the chapter 2.2. The ratios analyze the liquidity position of the company. And the company can use these ratios to manage its current liabilities and liquid assets. The following ratios are assumed: current ratio, quick ratio and cash ratio.

a) Current Ratio

Current ratio shows whether the company has enough current assets to settle current liabilities. It is calculated based on formula (2.12). The values can be seen in Table 4.4.

Table 4.4: Current Ratio

year	2008	2009	2010	2011	2012
Current Ratio	0.85	0.56	0.55	0.54	0.55

Source: financial company statements, own elaboration

From Table 4.4, we can see that the current ratio of Wu Group decreased a lot during 2008 to 2009. In 2008, the world faced financial crisis, China also faced the same problem, which made purchasing power decreased, so the current liabilities of Wu Group increased. And from 2009 to 2012, the ratios are all around 0.55. It looks bad, but because the average payment

period is twice the inventory turnover period, the current liabilities twice the current assets is reasonable. The current ratios are higher than 0.5, which means the current assets are more than half of current liabilities. So, there is no problem for the company in such a low ratio.

b) Quick Ratio

Quick ratio shows the company's ability of paying back short-term debt. It is calculated based on formula (2.13). The values can be seen in Table 4.5.

Table 4.5: Quick Ratio

year	2008	2009	2010	2011	2012
Quick Ratio	0.73	0.44	0.43	0.41	0.44

Source: financial company statements, own elaboration

From Table 4.5, we can see that the Wu Group's quick ratios are all below 1, and they are even below 0.5 during 2009 to 2012. Same as current ratios, it looks not good, but because the average payment period is twice the inventory turnover period, the current liabilities twice the current assets is reasonable. And the quick ratios are around 0.42, which means 42% of current liabilities can be paid by cash (both hold at bank account and obtained from the receivables), so the company can pay back debts very easily. It is very good for the company.

c) Cash Ratio

Cash ratio shows the company's ability of paying back current liabilities only by cash and cash equivalents. It is calculated based on formula (2.14). The values of the ratio can be seen in Table 4.6.

Table 4.6: Cash Ratio

year	2008	2009	2010	2011	2012
Cash Ratio	0.23	0.22	0.30	0.25	0.26

Source: financial company statements, own elaboration

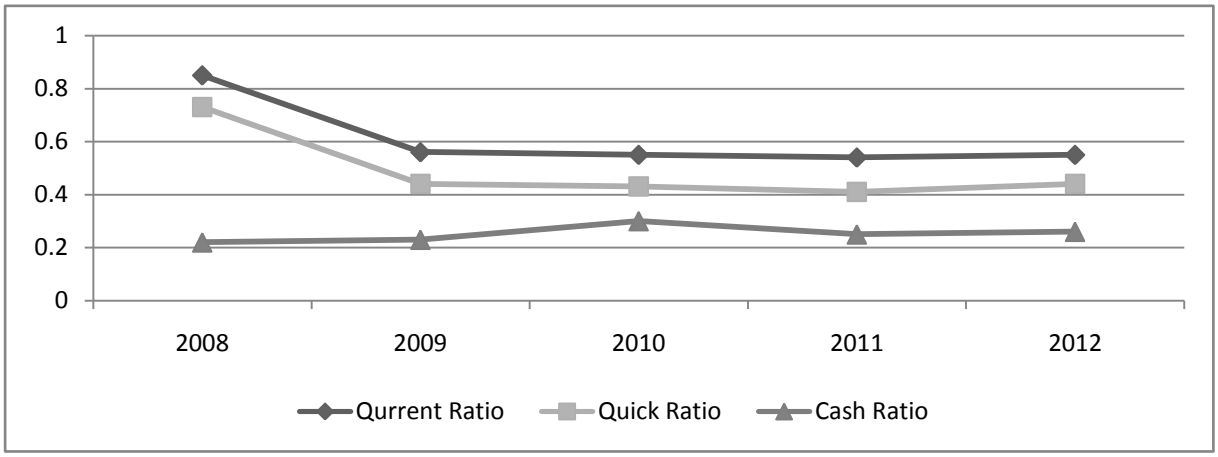
From Table 4.6, we can see that the Wu Group's cash ratios are all around 0.25; it is higher than the other companies. Due to the fact that the average payment period is twice the

inventory turnover period, the value of the ratio means Wu Group has enough cash and cash equivalents. It is good for the company.

d) General comparison of liquidity ratios

From Chart 4.10, we can see that the utilized liquidity rations decreased a lot from 2008 to 2009. Then from 2009 to 2012 they are stable. These three ratios look bad, but the average payment period is twice the inventory turnover period, this situation of Wu Group is very good.

Chart 4.10: Liquidity ratios of Wu Group



Source: financial company statements, own elaboration

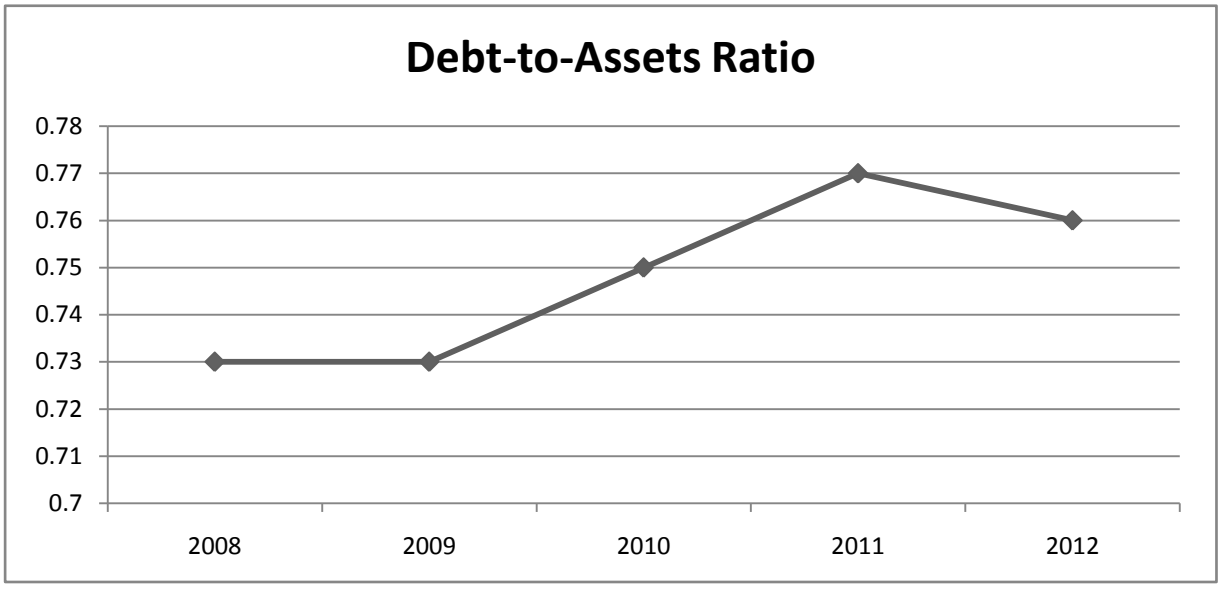
4.2.3 Solvency ratios analysis

Solvency ratios are used to analyze a company's ability of paying back debt. The following ratios are assumed: Debt-Assets ratio, Long-term Debt-to-Assets ratio, Debt-to-Equity ratio, Financial Leverage ratio, Interest Coverage ratio and Cash-Flow-to Debt ratio.

a) Debt-to-Assets Ratio

Debt-to-Assets ratio analyzes how many percentages of assets are financed by the debt of the company. It is calculated based on formula (2.16) and the values can be seen in Chart 4.11.

Chart 4.11: Debt-to-Assets Ratio



Source: financial company statements, own elaboration

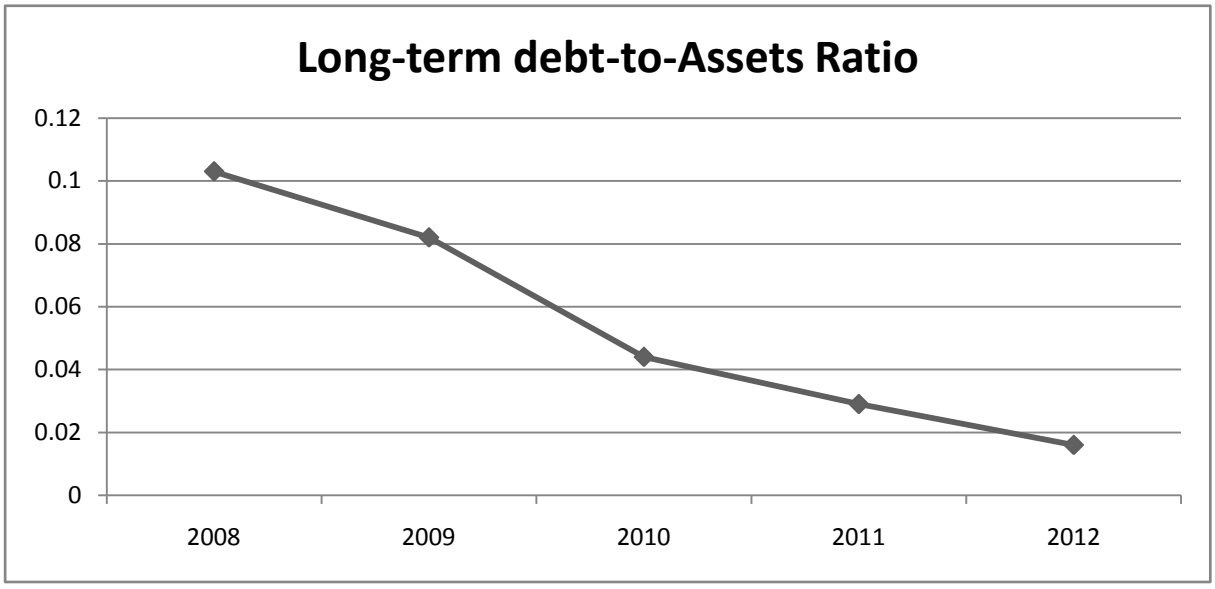
From Chart 4.11, we can see that the Debt-to-Assets ratios of Wu Group are very high, all higher than 0.73. In 2011, it is 0.77. This is high for the company. Moreover due to the fact that the most of liabilities of Wu Group are current liabilities, which should be paid back soon, the values of the ratio are not positive for the company. However the average payment period is high, so the value of the ratio is not critical for the company.

b) Long-term debt-to-Assets Ratio

Long-term debt-to-Assets ratio measures the percentages of a company's assets that are financed with long-term loans and financial obligations. It is calculated based on formula (2.17). The values are depicted in the Chart 4.12.

From Chart 4.12, we can see that the Long-term debt-to-Assets ratio of Wu Group decreased from 2008 to 2012, which means the company depends on long-term debt less and less than before. Because long-term debts were used to build new stores and Wu Group has no need for new buildings to be built, so the long-term debt was decreasing.

Chart 4.12: Long-term debt-to-Assets Ratio



Source: financial company statements, own elaboration

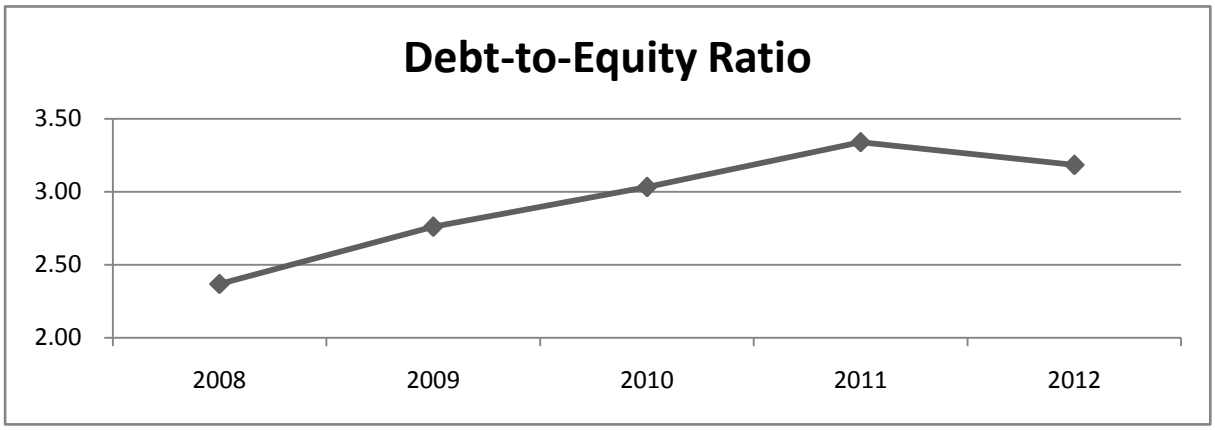
From the values of Debt-to-Assets ratios (high) and Long-term debt-to-Assets ratios (low) it is clear that the major part of the Debt-to-Assets ratio is due to the current liabilities, which are high. However, the high value of current liabilities is common for the analyzed company type of business and therefore it is not indicating any problems.

c) Debt-to-Equity Ratio

Debt-to-Equity ratio measures a company's capital structure. It is calculated based on formula (2.18). The values are depicted in Chart 4.13.

From Chart 4.13, we can see that all Debt-to-Equity ratios are higher than 2; from 2010 to 2012, the ratios are higher than 3. That can be very dangerous for the company. The most liabilities of Wu Group are current liabilities, which are used for credit sell. It will be a problem, if the company has not enough money to pay.

Chart 4.13: Debt-to-Equity Ratio

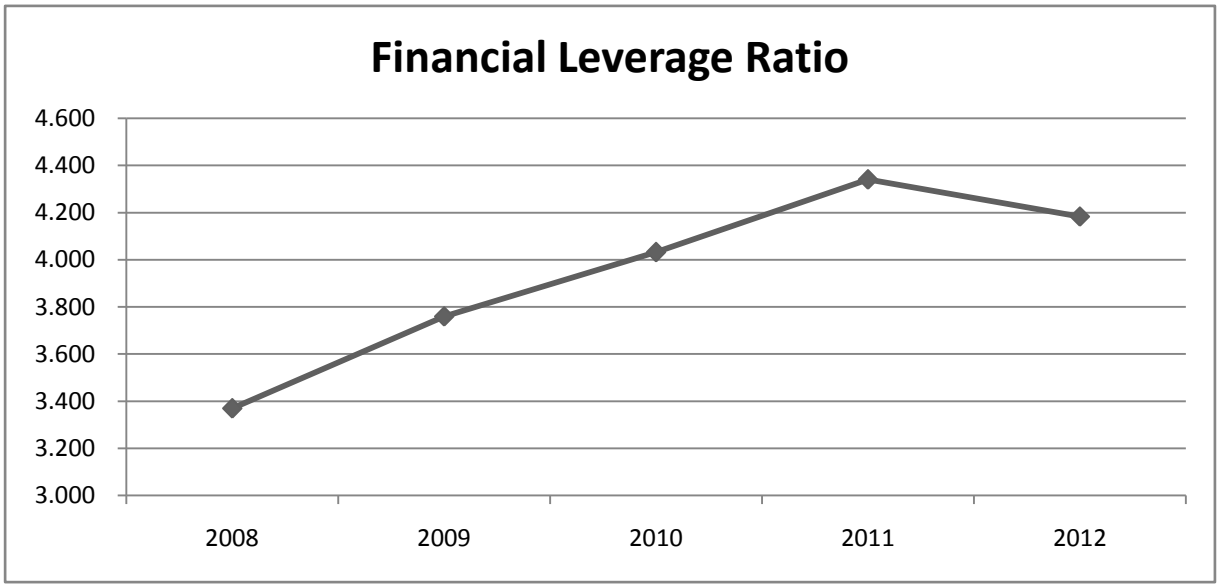


Source: financial company statements, own elaboration

d) Financial Leverage Ratio

Financial Leverage ratio is used to adjust equity corporate capital gains. It is calculated based on formula (2.19). The values are shown in Chart 4.14.

Chart 4.14: Financial Leverage Ratio



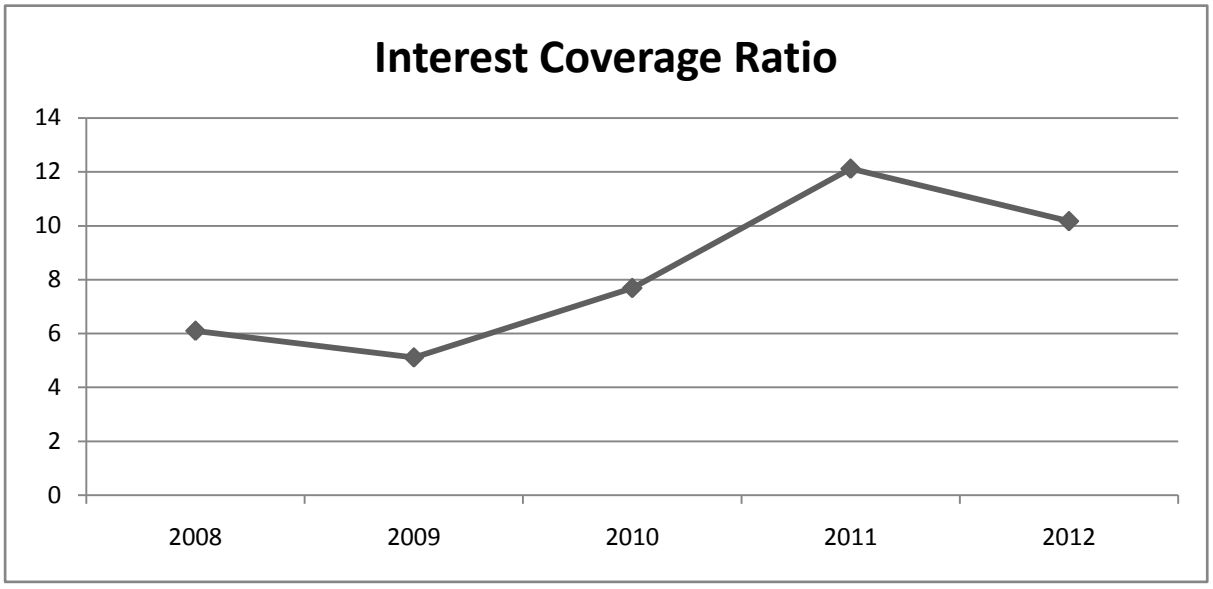
Source: financial company statements, own elaboration

From Chart 4.14, we can see that the Financial Leverage ratios of Wu Group are around 4 during 2008 to 2012. It is stable, but a little high. This means the company has not enough equity, and cannot expand the operation scale.

e) Interest Coverage Ratio

Interest Coverage ratio measures a company's ability of paying its interest expenses. It is calculated based on formula (2.20) and the values are depicted in the 4.15.

Chart 4.15: Interest Coverage Ratio



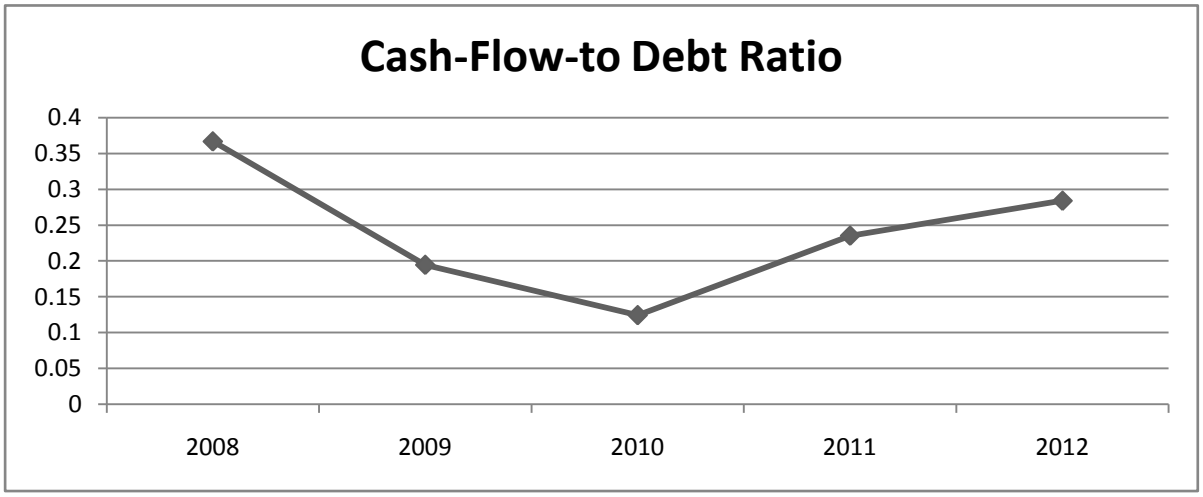
Source: financial company statements, own elaboration

From Chart 4.15, we can see that the Interest Coverage ratios of Wu Group increased during 2008 to 2012 in general. The high point is 12 in 2011; the lowest point is 5 in 2009. The value of 12 is high for this ratio, which means that the company can cover the interest from its profit easily. As the interest expenses constitute a small part of the profit for the company it means that debt burden is small for the company. The value of the ratio is good for the company.

f) Cash-Flow-to Debt Ratio

Cash-Flow-to Debt ratio is used to measure a company's ability of repaying debt (its nominal) from the cash-flow. It is calculated based on formula (2.21). The values are shown in Chart 4.16.

Chart 4.16: Cash-Flow-to Debt Ratio



Source: financial company statements, own elaboration

From Chart 4.16, we can see that the Cash-Flow-to Debt ratios of Wu Group decreased from 2008 to 2010, and increased from 2010 to 2012. The highest point is 0.36 in 2008; the lowest point is 0.12 in 2010. The higher Cash-Flow-to Debt ratio is, the higher ability of paying debt by cash. It increased during 2010 to 2012, so it is good for the Wu Group.

Concerning the value of the ratio, we can conclude that the company can repay its debts in approximately four years. Thus, the value of the ratio is in norm, and there are no threats from the debt repayments for the company.

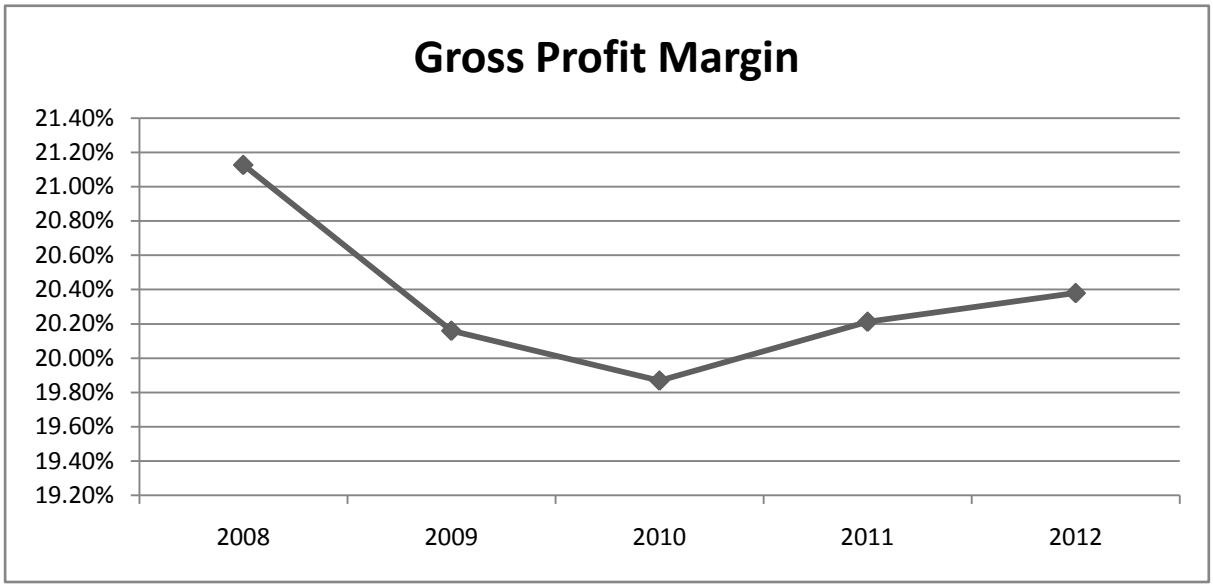
4.2.4 Profitability ratios analysis

Profitability ratios are used to measure a company's ability of managing its expenses to generate profits from its sales. The following ratios are assumed: gross profit margin, operating profit margin, pretax profit margin, net profit margin, return on assets (ROA) and return on equity (ROE).

a) Gross Profit Margin

Gross Profit Margin ratio measures gross profitability of a company. It is calculated based on formula (2.22). The values can be seen in Chart 4.17.

Chart 4.17: Gross Profit Margin



Source: financial company statements, own elaboration

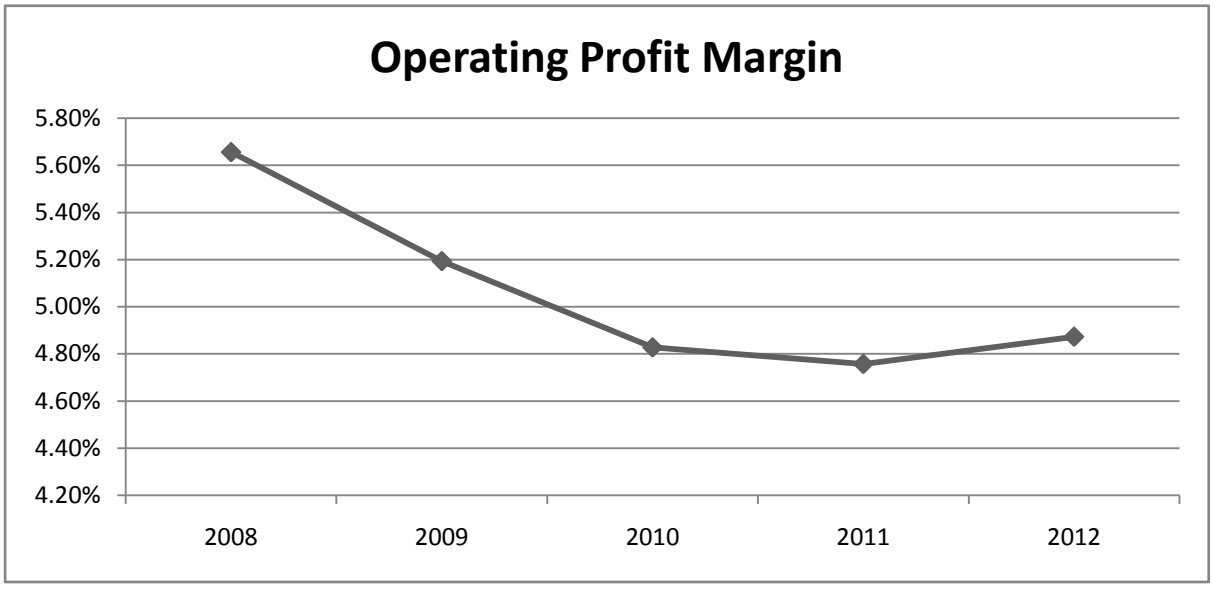
From Chart 4.17, we can see that the gross profit margin ratios of Wu Group decreased from 2008 to 2010, and increased from 2010 to 2012. But the changes are small, around 1 percent. Higher gross profit margin means higher profit and lower cost. According to this, the situation is good for the company.

b) Operating Profit Margin

Operating Profit Margin ratios measures the company's ability of creating operating profit. It is calculated based on formula (2.23) and the values are depicted in the Chart 4.18.

From Chart 4.18, we can see that operating profit margin ratios decreased from 2008 to 2011, and increased a little in 2012. Although the changes are small, the ratios are not high enough for a company. The Wu Group needs to find out a way to increase operating profit or decrease cost.

Chart 4.18: Operating Profit Margin



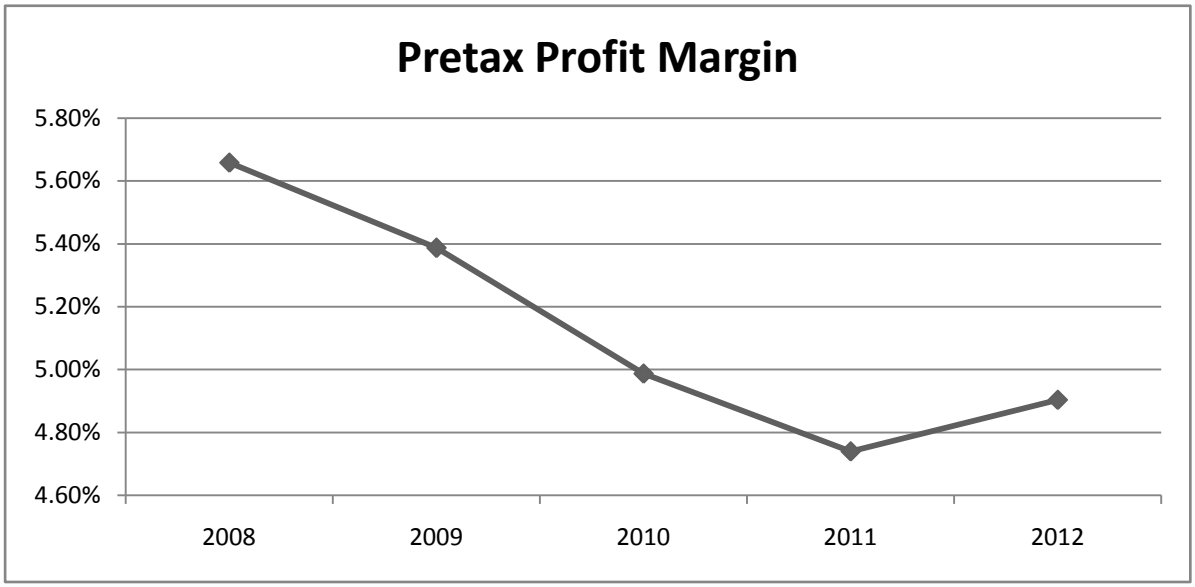
Source: financial company statements, own elaboration

c) Pretax Profit Margin

Pretax Profit Margin ratios are used to measure a company's ability of earning profit, the profit is substituted by earnings before taxes. It is calculated based on formula (2.24). The values are shown in Chart 4.19.

From Chart 4.19, we can see that the pretax profit margin ratios of Wu Group decreased a lot from 2008 to 2011, but increased a little from 2011 to 2012. That means the company has lower percentages of profit than before.

Chart 4.19: Pretax Profit Margin

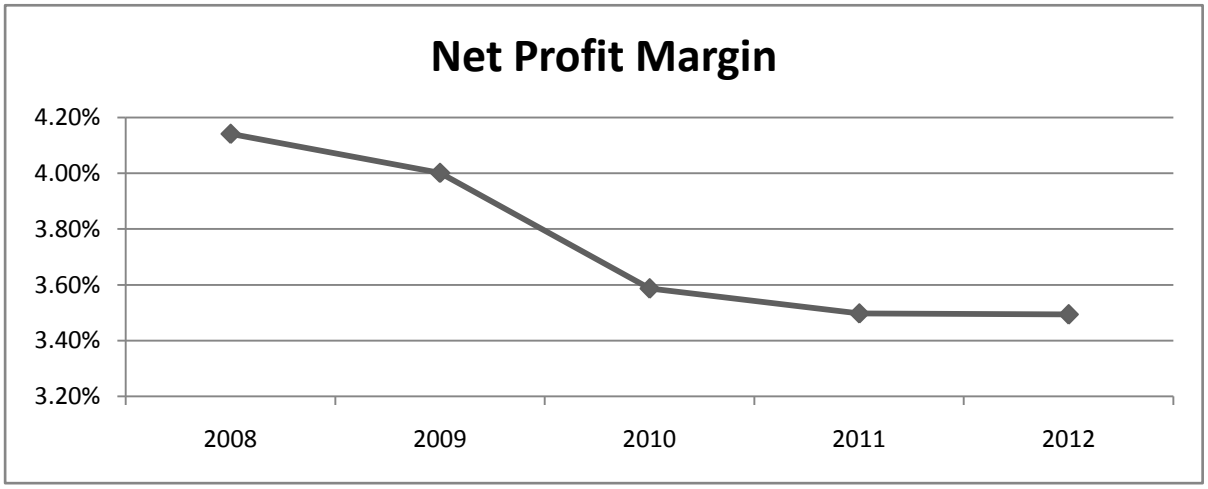


Source: financial company statements, own elaboration

d) Net Profit Margin

Net Profit Margin ratio compares net profits with revenues. It is calculated based on formula (2.25) and the values are depicted in the Chart 4.20.

Chart 4.20: Net Profit Margin



Source: financial company statements, own elaboration

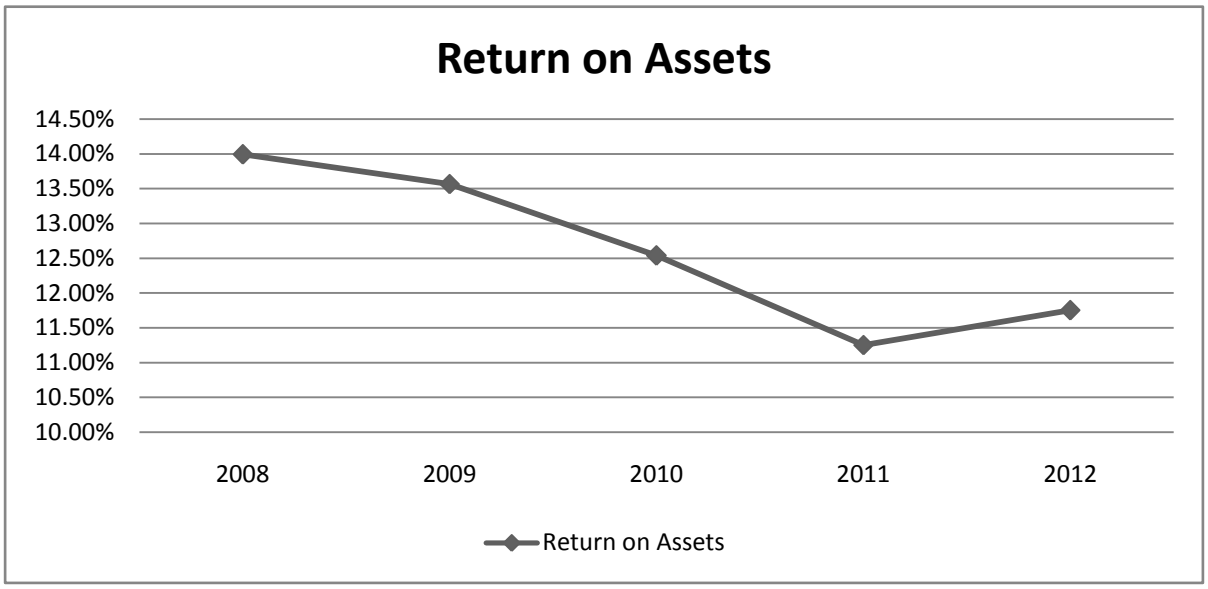
From Chart 4.20, we can see that the net profit margin ratios decreased from 2008 to 2012. That is very bad for the company. Although the changes in relative value are small in around 0.6%, the changes in absolute values are huge. Wu Group needs to make its business more

effective and in this way to earn more money.

e) Return on Assets (ROA)

Return on Assets ratio measures the ability of using its assets to generate net income. It is calculated based on formula (2.26). The values can be seen in Chart 4.21.

Chart 4.21: Return on Assets (ROA)



Source: financial company statements, own elaboration

From Chart 4.21, we can see that the returns on assets ratios of Wu Group are stable, around 13% from 2008 to 2012. Compare to other companies, this is high enough. That means the company is good at using its assets to generate net income.

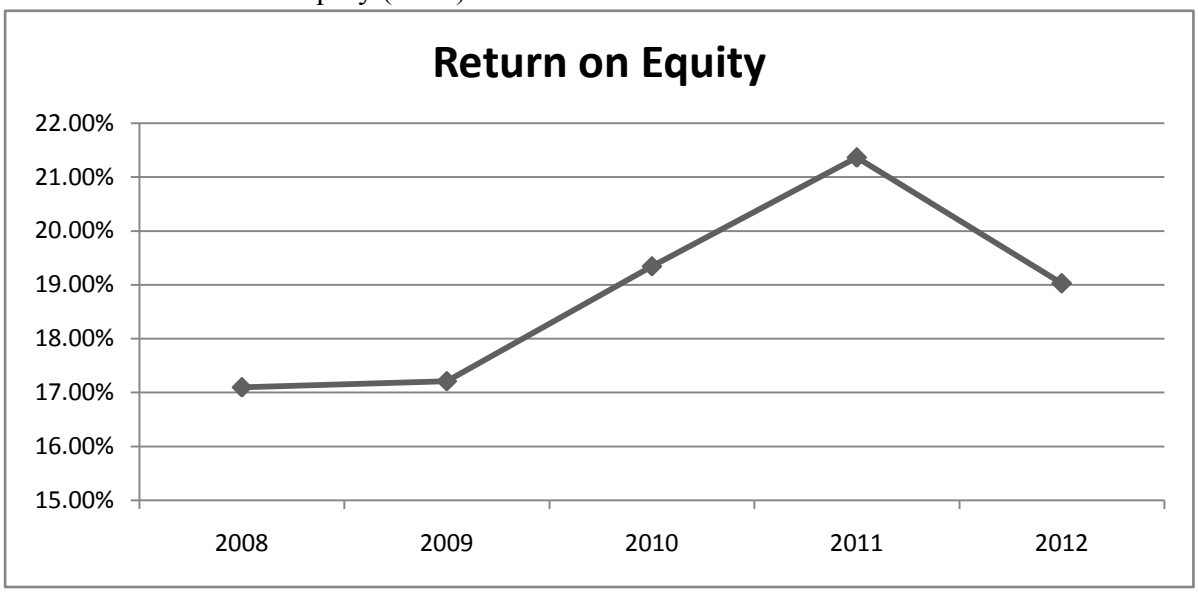
f) Return on Equity (ROE)

Return on Equity measures the profitability of a company. It is calculated based on formula (2.27) and the values are depicted in the Chart 4.22.

From Chart 4.22, we can see that the return on equity ratios of Wu Group increased from 2009 to 2011. The changes are not very big. The ROE of Wu Group is around 19%, this is high, which means the revenues from investment are high. It is good for the company. We can find that the shape of graph is different with other profitability ratios. Because ROE roughly equals to financial leverage ratio times ROA, and the values of financial leverage are higher

than ROA. Which makes the graph of the ROE is same as the graph of financial leverage ratio.

Chart 4.22: Return on Equity (ROE)



Source: financial company statements, own elaboration

From profitability ratios, we can find that although the profits grow very fast, the efficiency of earning money is decreasing. Wu Group needs to find a more effective way to decrease cost or increase profit.

4.3 DuPont Analysis

The DuPont analysis evaluates the company's level of profitability and return on shareholders' equity. In this part, we will measure the Wu Group's performance by using the DuPont analysis. The data is from Wu Group annual reports. DuPont analysis is calculated based on formulas in chapter 2.3.

ROE is decomposed based on formulas (2.28), (2.29), (2.30). The calculation of basic ratio (ROE) and component ratios is depicted in Table 4.7. All the ratios are described in previous chapters.

Table 4.7: Calculation of DuPont Analysis

	year	2008	2009	2010	2011	2012
Items (unit: thousand Yuan)	**Net Sales**	6,629,720	7,937,600	10,537,000	12,733,800	14,901,500
	Total assets	5,180,000	5,850,000	7,460,000	9,700,000	11,000,000
	EAT	274,575	317,624	377,907	445,378	520,582
	Revenues	6,642,864	7,961,762	10,562,715	12,754,345	14,918,666
	Total equity	1,540,000	1,560,000	1,850,000	2,230,000	2,640,000
	EBT	375,123	427,595	525,528	603,592	730,794
	Interest, net	61,459	83,610	68,347	49,822	71,870
	EBIT	436,582	511,205	593,875	653,414	802,664
Components ratios	**Tax burden**	73.20%	74.28%	71.91%	73.79%	71.24%
	Interest burden	85.92%	83.64%	88.49%	92.38%	91.05%
	Operating profit margin	5.63%	5.20%	4.81%	4.78%	4.85%
	Assets turnover	1.42	1.44	1.58	1.49	1.44
	Financial leverage	3.4	3.7	4	4.4	4.2
Basic ratio	**ROE**	17%	17%	19%	21%	19%

Source: financial company statements, own elaboration

From Table 4.7, we can find that almost all items in 2012 are twice than in 2008. Which means the business scale is higher than before. But operating profit margin shows us the efficiency of earning money is not good.

4.3.1 Influence quantification of the ROE

We will use two methods of DuPont analysis decomposition from 2008 (henceforth T_0) till 2012 (henceforth T_1). The applied methods are: gradual changes method and logarithmic

method.

a) The gradual changes method

The Table 4.8 shows the decomposition of ROE by using gradual changes method.

Table 4.8: Calculations according to the gradual changes method

	T_0	T_1	Change (absolute)	Influence (absolute)	Influence (relative)	Order of contribution
EAT/Equity (ROE)	0.1783	0.1972	0.0189	0.0189	10.60%	
EAT/EBT	0.7320	0.7124	-0.0196	-0.0048	-2.68%	5
EBT/EBIT	0.8592	0.9105	0.0512	0.0103	5.80%	3
EBIT/Revenues	0.0657	0.0538	-0.0119	-0.0333	-18.70%	2
Revenues/Asset	1.2824	1.3562	0.0738	0.0087	4.86%	4
Asset/Equity	3.3636	4.1667	0.8030	0.0380	21.32%	1
Sum	X	X	X	0.0189	10.60%	X

Source: financial company statements, own elaboration

From Table 4.8, the order of contribution shows us how much the component ratios have contributed to the ROE changes. The first one is financial leverage (0.2132), because they have same denominator (equity), and total assets are very huge.

b) The logarithmic method

The change of ROE and calculations according to the logarithmic method are showed in Table 4.9 and Table 4.10.

Table 4.9: Change of ROE

ROE_0	$ROE_0 = EAT_0 / EQUITY_0$	17.83%
ROE_1	$ROE_1 = EAT_1 / EQUITY_1$	19.72%
Absolute change	$\Delta ROE_{abs} = ROE_1 - ROE_0$	1.89%
Index of the change	$I_{ROE} = ROE_1 / ROE_0$	1.106

From Table 4.10, we can find the same order of contribution between gradual changes method and logarithmic method. Financial leverage influences basic ratio the most (0.2252). So, if the company wants to change its ROE, highest multiplicative effect will be if the company changes its financial leverage.

Table 4.10: Calculations according to the logarithmic method

	T_0	T_1	**Index of change**	**Influence (absolute)**	**Influence (relative)**	**Order of contribution**
EAT/Equity (ROE)	0.1783	0.1972	1.1060	0.0189	10.60%	
EAT/EBT	0.7320	0.7124	0.9732	-0.0051	-2.85%	5
EBT/EBIT	0.8592	0.9105	1.0597	0.0109	6.10%	3
EBIT/Revenues	0.0657	0.0538	0.8189	-0.0375	-21.02%	2
Revenues/Asset	1.2824	1.3562	1.0575	0.0105	5.89%	4
Asset/Equity	3.3636	4.1667	1.2388	0.0402	22.52%	1
Sum	X	X	X	0.0190	10.63%	X

Source: financial company statements, own elaboration

5. Conclusion

Financial analysis is used to evaluate a company's Profitability, Solvency, Liquidity and Stability, by using data of balance sheet, income statement and cash flow statement. The company needs the results of financial analysis to improve its profits, reduce its costs and so on.

The first chapter introduces the structure of the thesis; the second chapter is the description of the financial analysis methodology, in this chapter, we understood various purposes and formulas of financial analysis; the third chapter shows some information of Wu Group, including Wu Group's history, strategy and structure; the fourth chapter is the application of financial analysis, including common-size analysis, financial ratio analysis, and DuPont analysis.

From the results obtained in the thesis, we can find that Wu Group is a strong company in China. Its business is selling of general goods. Net income and revenues in 2012 are twice as in 2008. Almost every ratio is stable; many of them suggest the good future of Wu Group. In common-size analysis, vertical common-size analysis shows the total operating cost is a big part of revenues; horizontal common-size analysis shows almost every element of income statements is twice than before. In financial ratio analysis, activity ratios are stable; liquidity ratios are low, because the average payment period is twice the inventory turnover period, which makes current liabilities twice the current assets; solvency ratios show us that the debts of Wu Group are high, because the company has huge current liabilities for credit sell; profitability ratios show the profits of Wu Group are increasing but the efficiency of earning profit is decreasing; in DuPont analysis, from influence quantification analysis, both of the gradual changes method and the logarithmic method show the most important factor to influence the ROE is the financial leverage.

Base on whole thesis, Wu Group shows us its good ability of managing and selling. But it needs to find out good ways to solve some problems, such as too little equity, not good enough profitability and so on.

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List of Abbreviations

DOL	Degree of Operating Leverage
EBIT	Earnings before Interest and Taxes
EBT	Earnings before Taxes
EAT	Earnings after Taxes
ROA	Return on Assets
ROE	Return on Equity

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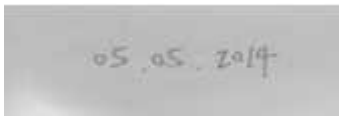

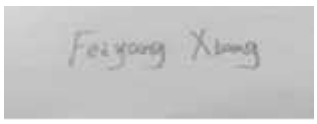

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List of Annexes

Annex 1

Income Statements

date	2008	2009	2010	2011	2012
unit (in thousands Yuan)	CNY	CNY	CNY	CNY	CNY
The total business income	6,629,720	7,937,600	10,537,000	12,733,800	14,901,500
Total operating cost	6,281,400	7,569,980	10,029,300	12,126,500	14,176,400
Operating cost	5,229,050	6,337,400	8,443,450	10,160,100	11,864,600
Business tax and surcharges	63,762	70,147	91,439	115,862	135,404
Cost of sales	792,566	908,631	1,253,080	1,569,420	1,837,610
Management fee	123,884	161,901	183,856	227,079	255,406
Financial expenses	61,459	83,610	68,348	49,823	71,871
Impairment loss of assets	10,689	8,287	-10,868	4,256	11,428
Income from investment	26,652	44,606	893	-1,655	927
Among them: the joint venture and joint venture investment income	-1,969	712	674	-4,299	-607
Operating profit	374,963	412,220	508,622	605,707	726,078
Operating income	13,144	24,163	25,715	20,546	17,167
Business expenditure	12,984	8,789	8,809	22,662	12,452
Loss on disposal of non current assets	1,849	6,627	2,953	17,851	8,119
Total profit	375,123	427,595	525,528	603,592	730,794
Income tax expense	100,549	109,971	147,621	158,214	210,212
Net profit	274,575	317,624	377,907	445,378	520,582
Net profit attributable to the parent company of owners	180,392	238,752	293,515	331,290	402,414

Minority interest	94,183	78,872	84,392	114,087	118,168
Other comprehensive income	-	455	-473	-1,497	157
Total comprehensive income	-	318,078	377,434	443,881	520,738
Total comprehensive income attributed to the owner of the parent company	-	239,207	293,042	329,794	402,570
Total comprehensive income attributable to the minority shareholders	-	78,872	84,392	114,087	118,168

Annex 2

Balance sheet

date	**2008**	**2009**	**2010**	**2011**	**2012**
Unit (in thousands Yuan)	**CNY**	**CNY**	**CNY**	**CNY**	**CNY**
circulating assets					
monetary resources	1,420,000	1,380,000	1,980,000	2,280,000	2,170,000
Trading financial assets	-	244	-	-	-
Notes receivable	28	570	1,470	3,630	4,640
Accounts receivable	16,300	21,500	16,900	12,000	8,010
Prepayments	658,000	102,000	118,000	490,000	1,220,000
Dividend Receivable	-	-	-	-	59
Other receivables	148,000	180,000	141,000	164,000	214,000
Stock	384,000	428,000	642,000	914,000	858,000
Total current assets	2,620,000	2,110,000	2,900,000	3,860,000	4,480,000
Non current assets	-	-	-	-	-
Available for sale financial assets	3,110	3,720	3,090	753	962
Long term equity investment	93,500	39,100	40,600	35,500	415,000
Investment real estate	164,000	152,000	140,000	128,000	116,000
Original value of fixed assets	2,250,000	2,300,000	2,390,000	4,460,000	4,510,000
Accumulated depreciation	450,000	476,000	557,000	645,000	776,000
Net value of fixed assets	1,800,000	1,820,000	1,830,000	3,810,000	3,730,000
Net fixed assets	1,800,000	1,820,000	1,830,000	3,810,000	3,730,000
In the Construction Engineering	52,500	50,900	694,000	-	73,200

Intangible assets	167,000	1,200,000	1,320,000	1,290,000	1,600,000
Long term prepaid expenses	269,000	435,000	484,000	504,000	549,000
Deferred income tax assets	4,500	34,300	44,100	61,500	72,700
Non current assets	2,550,000	3,740,000	4,550,000	5,830,000	6,560,000
Total assets	5,180,000	5,850,000	7,460,000	9,700,000	11,000,000
Current liabilities	-	-	-	-	-
Short term borrowings	672,000	562,000	685,000	750,000	614,000
Notes payable	5,330	4,010	869	26,600	26,100
Account payable	917,000	1,120,000	1,500,000	1,880,000	2,040,000
Advance payment	587,000	966,000	1,700,000	2,590,000	3,350,000
Employee salary payable	91,300	123,000	177,000	247,000	280,000
Tax payable	233,000	176,000	196,000	195,000	325,000
Interest payable	-	-	-	-	8,310
Dividend payable	2,890	2,890	2,850	2,850	2,850
Other payables	499,000	463,000	802,000	1,320,000	1,160,000
Due within one year of non current liabilities	71,000	374,000	198,000	149,000	101,000
Other current liabilities	-	-	-	-	300,000
Total liabilities	3,080,000	3,790,000	5,260,000	7,160,000	8,200,000
Non current liabilities	-	-	-	-	-
Long term loans	534,000	480,000	329,000	281,000	180,000
Expected non current liabilities	28,400	25,100	21,700	18,400	15,000

Deferred income tax liabilities	633	785	627	128	181
Total non current liabilities	563,000	506,000	352,000	300,000	196,000
Total liabilities	3,640,000	4,290,000	5,610,000	7,460,000	8,400,000
The owner's equity	-	-	-	-	-
Paid in capital (or stock)	507,000	507,000	507,000	507,000	507,000
Capital reserve	548,000	548,000	548,000	546,000	534,000
Surplus reserve	77,700	163,000	205,000	242,000	298,000
Undistributed profit	142,000	194,000	451,000	744,000	1,090,000
Attributable to shareholders of the company together	1,270,000	1,410,000	1,710,000	2,040,000	2,430,000
The rights of minority shareholders	262,000	143,000	139,000	194,000	209,000
Owner's equity (or shareholders' equity) together	1,540,000	1,560,000	1,850,000	2,230,000	2,640,000
Liabilities and owner's equity (or shareholders' equity) total	5,180,000	5,850,000	7,460,000	9,700,000	11,000,000

Annex 3

Cash flow Statements

date	2008	2009	2010	2011	2012
Unit (in thousands Yuan)	**CNY**	**CNY**	**CNY**	**CNY**	**CNY**
Cash flows from operating activities					
Cash received from sales of goods, services provided	7,985,160	9,597,210	12,995,000	15,754,100	17,284,200
Other cash received relating to operating activities	60,534	41,510	49,172	71,561	113,242
Subtotal of cash inflow from operating activities	8,045,690	9,638,720	13,044,200	15,825,700	17,397,400
The purchase of goods, labor pay cash	6,200,380	7,303,110	9,714,840	11,877,300	12,948,200
Paid to and for employees cash	266,735	352,531	465,013	650,658	857,386
The tax payment	331,049	510,342	565,184	653,650	695,260
Cash payments relating to other operating activities	416,630	536,502	675,803	801,102	731,483
Cash outflow for operating activities	7,214,800	8,702,490	11,420,800	13,982,700	15,232,400
Generated from operating activities net cash flow	830,898	936,231	1,623,330	1,842,970	2,165,070
Cash flow from investment activities	-	-	-	-	-
To recover the investment cash received	43,002	77,563	385	3,555	924,968
Cash received from investment income	-	284	157	167	1,475
Net cash receipts from disposal of fixed assets, intangible assets and other long-term assets	32,638	19,486	150	637	72
Cash inflow from investment activities	75,658	97,332	7,395	4,359	926,515
Purchase payment of fixed assets, intangible assets and other long-term assets cash	863,081	756,545	652,727	1,391,770	1,672,830
The investment paid in cash	11,348	134,611	80	-	1,304,970

Cash payments relating to other investing activities	-	-	-	-	30,000
Cash outflow for investment activities	874,429	891,156	652,807	1,391,770	3,007,800
Net cash flow from investment activities	-798,771	-793,824	-645,412	-1,387,420	-2,081,280
Cash flow from financing activities	-	-	-	-	-
Cash received from loan	1,003,000	978,000	918,000	849,000	780,000
Cash received from issuing bonds	-	-	-	-	298,800
Cash inflow from financing activities	1,003,000	978,000	963,000	849,000	1,078,800
Cash paid for debts	834,500	839,000	1,122,000	880,386	1,065,990
The distribution of dividends, profit or cash payment	78,045	321,306	167,985	130,630	174,027
	-	139,676	83,930	59,468	85,479
Cash payments relating to other financing activities	-	45,000	-	-	26,217
Sub total of cash outflows from financing activities	912,545	1,205,310	1,289,980	1,011,020	1,266,230
Net cash flow from financing activities	90,456	-227,306	-326,985	-162,016	-187,430
Note appended	-	-	-	-	-
Effect of changes in exchange rate on cash and cash equivalents	-11	-0	-5	-7	-0
Net increase in cash and cash equivalents amount	122,571	-84,900	650,927	293,527	-103,639
Beginning balance of cash and cash equivalents	1,295,420	1,417,990	1,333,090	1,984,020	2,277,550
The final balance of cash and cash equivalents	1,417,990	1,333,090	1,984,020	2,277,550	2,173,910
Net profit	274,575	317,624	377,907	445,378	520,582
Impairment of assets	10,689	8,287	-10,868	4,256	11,428

The depreciation of fixed assets, oil and gas assets depreciation, the depreciation of production materials	85,124	89,767	95,899	110,948	149,695
Amortization of intangible assets	5,304	22,117	32,871	36,921	42,777
Amortization of long-term prepaid expenses	29,525	69,881	119,313	118,274	93,022
The disposal of fixed assets, intangible assets and other long-term assets loss	1,210	-2,531	2,953	17,842	8,076
Financial expenses	76,793	86,967	76,446	66,622	89,501
Investment loss	-26,652	-44,606	-893	1,655	-927
Reduction of deferred income tax assets	1,898	-29,771	-9,784	-17,434	-11,196
The decrease of inventory	-138,016	-44,160	-140,547	-271,833	55,144
Decrease in operating receivables	78,816	-127,032	82,067	-109,940	-26,513
Increase in operating payables	431,745	589,689	997,959	1,440,270	1,233,480
Other	-114	0	5	7	0
Generated from operating activities net cash flow	830,898	936,231	1,623,330	1,842,970	2,165,070
The closing balance of cash	1,417,990	1,333,090	1,984,020	2,277,550	2,173,910
Beginning balance of cash	1,295,420	1,417,990	1,333,090	1,984,020	2,277,550
Net increase in cash and cash equivalents	122,571	-84,900	650,927	293,527	-103,639

Annex 4

Vertical common-size analysis of Assets

items	2008	2009	2010	2011	2012
monetary resources	19.73%	23.51%	26.54%	23.59%	27.41%
Accounts receivable	0.07%	0.12%	0.23%	0.37%	0.31%
Prepayments	11.09%	5.05%	1.58%	1.74%	12.70%
Other receivables	1.95%	1.69%	1.89%	3.08%	2.86%
Stock	7.80%	9.42%	8.61%	7.32%	7.41%
Total current assets	40.73%	39.79%	38.87%	36.07%	50.58%
Long term equity investment	3.77%	0.37%	0.54%	0.67%	1.81%
Investment real estate	1.05%	1.32%	1.88%	2.60%	3.17%
Original value of fixed assets	41.00%	45.98%	32.04%	39.32%	43.44%
Accumulated depreciation	7.05%	6.65%	7.47%	8.14%	8.69%
Net fixed assets	33.91%	39.28%	24.53%	31.11%	34.75%
In the Construction Engineering	0.67%	0.00%	9.30%	0.87%	1.01%
Intangible assets	14.55%	13.30%	17.69%	20.51%	3.22%
Long term prepaid expenses	4.99%	5.20%	6.49%	7.44%	5.19%
Deferred income tax assets	0.66%	0.63%	0.59%	0.59%	0.09%
Noncurrent assets	59.64%	60.10%	60.99%	63.93%	49.23%
Total assets	100.00%	100.00%	100.00%	100.00%	100.00%

Source: financial company statements, own elaboration

Annex 5

Vertical common-size analysis of Liabilities and Equity

items	2008	2009	2010	2011	2012
Short term borrowings	5.58%	7.73%	9.18%	9.61%	12.97%
Account payable	18.55%	19.38%	20.11%	19.15%	17.70%
Advance payment	30.45%	26.70%	22.79%	16.51%	11.33%
Employee salary payable	2.55%	2.55%	2.37%	2.10%	1.76%
Tax payable	2.95%	2.01%	2.63%	3.01%	4.50%
Other payables	10.55%	13.61%	10.75%	7.91%	9.63%
Long term loans	1.64%	2.90%	4.41%	8.21%	10.31%
Total noncurrent liabilities	1.78%	3.09%	4.72%	8.65%	10.87%
Total current liabilities	74.55%	73.81%	70.51%	64.79%	59.46%
Paid in capital (or stock)	4.61%	5.23%	6.80%	8.67%	9.79%
Capital reserve	4.85%	5.63%	7.35%	9.37%	10.58%
Surplus reserve	2.71%	2.49%	2.75%	2.79%	1.50%
Undistributed profit	9.91%	7.67%	6.05%	3.32%	2.74%
AttribuTable to shareholders of the company together	22.09%	21.03%	22.92%	24.10%	24.52%
The rights of minority shareholders	1.90%	2.00%	1.86%	2.44%	5.06%
Owner's equity (or shareholders' equity) together	24.00%	22.99%	24.80%	26.67%	29.73%
Liabilities and owner's equity (or shareholders' equity) total	100.00%	100.00%	100.00%	100.00%	100.00%

Source: financial company statements, own elaboration

Annex 6

Horizontal common-size analysis of Assets

items	2008	2009	2010	2011	2012
monetary resources	100.00%	105.07%	91.24%	63.59%	65.44%
Accounts receivable	100.00%	149.81%	210.99%	268.41%	203.50%
Prepayments	100.00%	40.16%	9.67%	8.36%	53.93%
Other receivables	100.00%	76.64%	65.89%	84.11%	69.16%
Stock	100.00%	106.53%	74.83%	49.88%	44.76%
Total current assets	100.00%	86.16%	64.73%	47.10%	58.48%
Long term equity investment	100.00%	8.55%	9.78%	9.42%	22.53%
Investment real estate	100.00%	110.34%	33.73%	131.03%	141.38%
Original value of fixed assets	100.00%	98.89%	52.99%	51.00%	49.89%
Accumulated depreciation	100.00%	83.12%	71.78%	61.34%	57.99%
Net fixed assets	100.00%	102.14%	49.06%	48.79%	48.26%
In the Construction Engineering	100.00%	0.00%	948.09%	69.54%	71.72%
Intangible assets	100.00%	80.63%	82.50%	75.00%	10.44%
Long term prepaid expenses	100.00%	91.80%	88.16%	79.23%	49.00%
Deferred income tax assets	100.00%	84.59%	60.66%	47.18%	6.19%
Noncurrent assets	100.00%	88.87%	69.36%	57.01%	38.87%
Total assets	100.00%	88.18%	67.82%	53.18%	47.09%

Source: financial company statements, own elaboration

Annex 7

Horizontal common-size analysis of Liabilities and Equity

items	2008	2009	2010	2011	2012
Short term borrowings	100.00%	122.15%	111.56%	91.53%	109.45%
Account payable	100.00%	92.16%	73.53%	54.90%	44.95%
Advance payment	100.00%	77.31%	50.75%	28.84%	17.52%
Employee salary payable	100.00%	88.21%	63.21%	43.93%	32.61%
Tax payable	100.00%	60.00%	60.31%	54.15%	71.69%
Other payables	100.00%	113.79%	69.14%	39.91%	43.02%
Long term loans	100.00%	156.11%	182.78%	266.67%	296.67%
Total noncurrent liabilities	100.00%	153.06%	179.59%	258.16%	287.24%
Total liabilities	100.00%	88.81%	66.79%	51.07%	43.33%
Paid in capital (or stock)	100.00%	100.00%	100.00%	100.00%	100.00%
Capital reserve	100.00%	102.25%	102.62%	102.62%	102.62%
Surplus reserve	100.00%	81.21%	68.79%	54.70%	26.07%
Undistributed profit	100.00%	68.26%	41.38%	17.80%	13.03%
AttribuTable to shareholders of the company together	100.00%	83.95%	70.37%	58.02%	52.26%
The rights of minority shareholders	100.00%	92.82%	66.51%	68.42%	125.36%
Owner's equity (or shareholders' equity) together	100.00%	84.47%	70.08%	59.09%	58.33%
Liabilities and owner's equity (or shareholders' equity) total	100.00%	88.18%	67.82%	53.18%	47.09%

Source: financial company statements, own elaboration